Distribution of Selected Small Mammals in Alberta

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Distribution of Selected Small Mammals in Alberta

Lance Engley
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Alberta Species at Risk Report No. 12

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TABLE OF CONTENTS

ACKNOWLEDGEMENTS iv

EXECUTIVE SUMMARY v

1.0 INTRODUCTION 1

2.0 STUDY AREA 1

3.0 METHODS 1

4.0 RESULTS 2

Prairie Shrew (*Sorex haydeni*) 3

Wandering Shrew (*Sorex vagrans*) 5

Long-eared Bat (*Myotis evotis*) 7

Long-legged Bat (*Myotis volans*) 9

Western Small-footed Bat (*Myotis ciliolabrum*) 11

Hoary Bat (*Lasiurus cinereus*) 13

Franklin's Ground Squirrel (*Spermophilus franklinii*) 15

Olive-backed Pocket Mouse (*Perognathus fasciatus*) 17

Western Harvest Mouse (*Reithrodontomys megalotis*) 19

Northern Grasshopper Mouse (*Onychomys leucogaster*) 21

Taiga Vole (*Microtus xanthognathus*) 23

Prairie Vole (*Microtus ochrogaster*) 25

Water Vole (*Microtus richardsoni*) 27

Sagebrush Vole (*Lemmiscus curtatus*) 29

Brown Lemming (*Lemmus sibiricus*) 31

5.0 DISCUSSION 33

6.0 MANAGEMENT IMPLICATIONS AND FUTURE DIRECTIONS 33

7.0 LITERATURE CITED 34

APPENDIX 1. Alberta species records. 37

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Note: The University of Calgary Zoology Museum was contacted; however, their collection information was not available.

This project was completed when the Fisheries and Wildlife Management Division was part of Alberta Environment; this division is now part of Alberta Sustainable Resource Development.

EXECUTIVE SUMMARY

The status and distribution of many of Alberta's small mammals is unknown. This report summarizes the information available on 15 of these species, as a step in updating their status for The General Status of Alberta Wild Species 2000 (*In prep.*).

Much of the information in this report was gathered from North American museums. Additional data were collected from reports that contained, at a minimum, quantitative data for locations and date, as well as reliable species identification. Much of this information was gathered from studies which analyzed small mammal remains found in owl pellets. In total, over 1000 records were amassed from the various sources. All of these observations have been stored in the Biodiversity/Species Observation Database.

In other studies, researchers have found analyzing owl pellets to be a valuable technique for collecting data on small mammals. It has proven to be a cost effective, reliable method of data capture, and efforts should be made to continue this research in the future.

1.0 INTRODUCTION

Every five years, the Fisheries and Wildlife Management Division of Alberta Natural Resources Service reviews the status of wildlife species in Alberta. These overviews, which have been conducted in 1991 and 1996, assign individual species to specific lists that reflect the perceived level of risk to populations that occur in the province.

Very little is known about the status and distribution of many of Alberta's small mammals. Often, museum specimens are the only reliable source of information on the occurrence and distribution of many of these species, because some species can only be reliably identified through careful inspection in the hand. Recent work analyzing the remains of small mammals found in owl pellets has also proved to be a reliable and effective means of sampling for some species (e.g., Smith 1992, Schowalter and Digby 1999).

The primary purpose of this project was to compile detailed records on all small mammals listed as either 'Yellow B' or 'Status Undetermined' in the 1996 Status of Alberta Wildlife review (Alberta Wildlife Management Division 1996). Species designated as 'Yellow B' are those that are naturally rare, have clumped breeding distributions, or are associated with habitats that are (or may be) deteriorating. Those classified as 'Status Undetermined' are species that are not known to be at risk, but for which insufficient information is available to determine a status. Generalized information is available on these species through published sources (e.g., Soper 1964, Smith 1993), but detailed species records remain scattered among various institutions, publications, and so forth. This report summarizes the information that was compiled on occurrences of each species, and highlights some of the more significant, questionable or previously unknown records for 15 species of small mammals.

2.0 STUDY AREA

This study focussed on the distribution of small mammals found in Alberta. Only observations or specimens collected from within the province of Alberta were included.

3.0 METHODS

In total, 18 museums within North America and Europe were contacted (see Acknowledgements). Each museum was asked to provide information on a group of species listed as either 'Yellow B' or 'Status Undetermined' in The Status of Alberta Wildlife (Alberta Wildlife Management Division 1996). Additionally, data were gathered on three 'Blue listed' species: the northern long-eared bat (*Myotis septentrionalis*), Ord's kangaroo rat (*Dipodomys ordii*), and red-tailed chipmunk (*Tamias ruficaudus*). A summary of the data obtained for these three species is not included in this report, as detailed information on these species can be found in Caceres and Pybus (1997), Gummer (1997) and Bennett (1999). The information obtained for each specimen in this report included, at a minimum, the collection date, location and museum collection number. Any additional information (age, sex, collector, etc.) was also requested but was not necessarily available. As well, several other projects that recorded quantitative data for

locations and date, and reliable species identifications, were also included. The majority of the data from these sources comes from the analysis of small mammal remains in owl pellets. The tables accompanying each species account in the report list the number of records that were gathered from each source for each of the target species. On each distribution map, several records may be represented by a single dot if those specimens were collected at the same locality.

All data obtained were entered into the Biodiversity/Species Observation Database (BSOD). BSOD was then used to generate data tables of this information, which were in turn used to create the maps that accompany each species account. A joint initiative of Alberta Fisheries and Wildlife Management and the Alberta Conservation Association, BSOD stores observational data primarily on species at risk or of undetermined status. All information entered into BSOD is fully referenced as to its source and is directly available to employees of both the Alberta Conservation Association and Alberta Fisheries and Wildlife Management. The data are also available to the public by contacting either of these organizations; however, all institutions that have provided data should be considered the primary source for the information in this report.

Appendix 1 contains a list of all of the data gathered during the compilation of this report. The latitude and longitude columns represent an estimate of the given locality. These locations were either provided by the source or determined based on a description of the collection locality. Each location was expressed as a pair of point coordinates with a measure of precision. Precision should be interpreted as the distance (+/- meters) around the point representing the imprecision in the location. A smaller number indicates a more precise location.

Much of the location data provided by the museums was given only as a descriptive location of the collection locality. When this occurred, the location was plotted at a point in the center of the collection site (e.g., a descriptive location provided as the town of Bashaw was plotted in the center of the townsite), and a 5000 m precision was assigned. Precision was either estimated based on the location description (5000 m precision) or derived from location units provided by the source. For example, locations provided from the source with only township and range were assigned a precision of 6900 m. These records were plotted at the center of the given area and a precision encompassing the entire area (i.e., 6900 m for a township) was assigned. For a list of precision values assigned to various location units provided by the source, see Appendix 1.

4.0 RESULTS

Results collected are presented by species. Each species account includes a brief description of the species, as well as its status and distribution within the province. Distribution maps accompany each species account and highlight any significant, questionable or previously unknown records.

Prairie Shrew (*Sorex haydeni*)

One of Alberta's smallest shrews, prairie shrews inhabit both the Grassland and Aspen Parkland Natural Regions. Preferring open areas with heavy ground cover, prairie shrews are usually found in areas with dense vegetation comprised of various grasses and shrubs (Smith 1993).

Status

Smith (1993) considered the prairie shrew to be 'uncommon'. The species was listed as 'Status Undetermined' in the 1996 Status of Alberta Wildlife review (Alberta Wildlife Management Division 1996) and is expected to be classified as *Secure* in the pending 2000 status review (G. Court, pers. comm.).

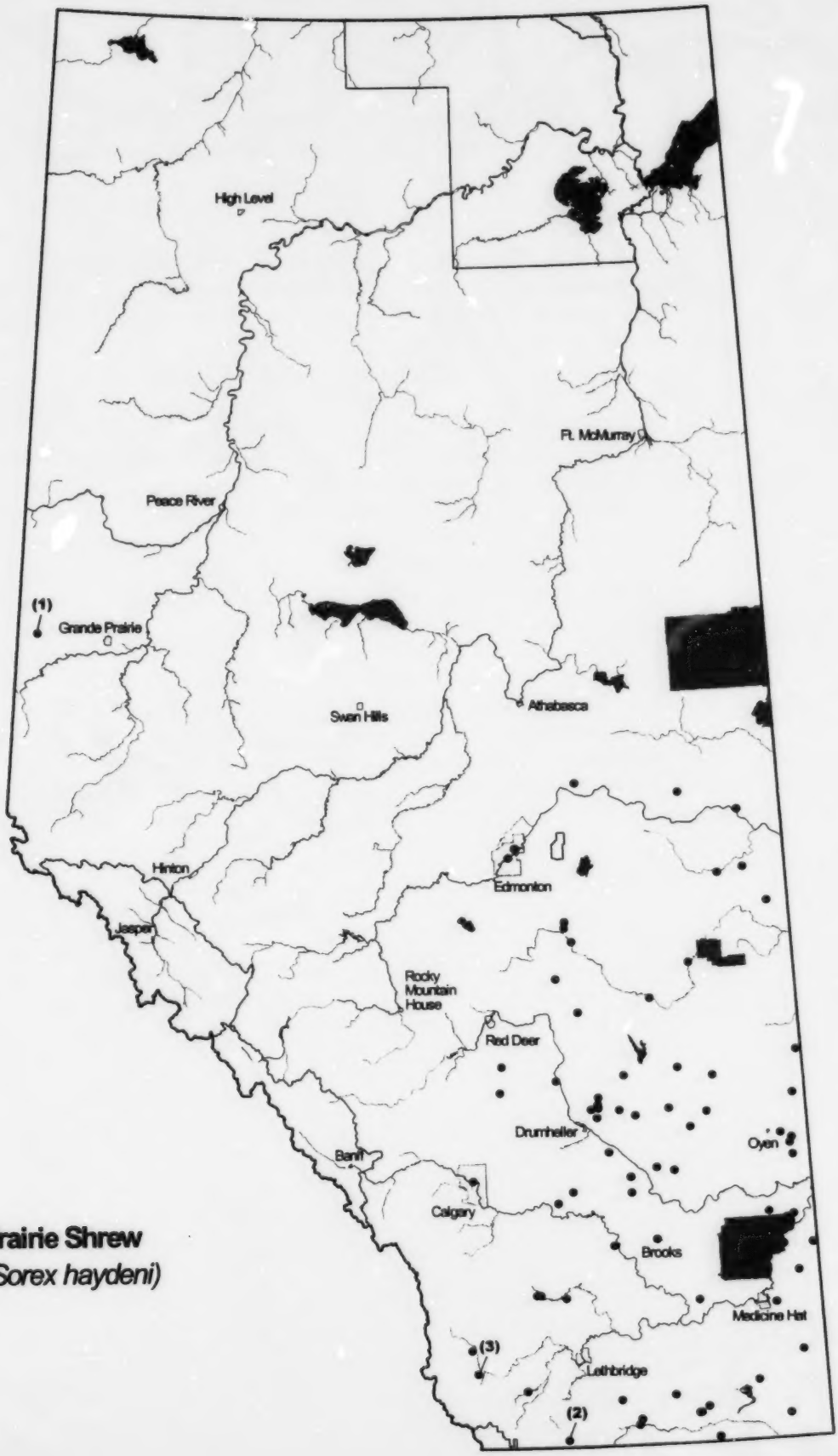
Distribution

The prairie shrew is known to occur in Alberta from the southeastern corner of the province, west to Whisky Gap, north through Cowley and Edmonton, and east through Warspite and St. Paul to the Saskatchewan border. Three of the records mapped are particularly noteworthy. Record (1) is a specimen (UAMZ M1303) collected at Beaverlodge by Dr. J. E. Moore on 20 October 1947. This specimen was confirmed as a prairie shrew by van Zyll de Jong (1980). Moore, a prolific collector with an eye for detail, collected no other specimens from this time and location (W. Roberts, pers. comm.). A 1982 expedition to the Beaverlodge area by the national museum of Canada was devoted mainly to finding prairie shrews. However, they were not successful in obtaining any more specimens (M. Gosselin, pers. comm.). While there is no doubt that this specimen is a prairie shrew obtained at Beaverlodge, it is possible that it had been transported to Beaverlodge from another location before being collected.

Record (2) represents four specimens (UAMZ M9963) obtained from owl pellets near Whisky Gap in southwestern Alberta (Schowalter and Digby 1999). Previously known from this latitude only as far west as the town of Milk River (Smith 1993), these records extend the range of the prairie shrew by approximately 70 km. Record (3) is a specimen (UAMZ M9376) said to be collected in montane habitat (Petersen and Roberts 1999), from Cowley, 29 March 1997.

Table 1. Source of mapped records

Data source	Number of records represented
Provincial Museum of Alberta (PMA)	201
Schowalter and Digby (1999)	113
University of Alberta Museum of Zoology (UAMZ)	80
Schowalter and Digby (1997)	70
Smith (1981)	37
Schowalter (2000b)	30
Smith (1992)	15
Schowalter (2000a)	10
Canadian Museum of Nature (CMN)	3



Prairie Shrew
(Sorex haydeni)

Wandering Shrew (*Sorex vagrans*)

Wandering shrews are generally found near streams or marshes. Moist coniferous forests and willow/sedge thickets seem to be the preferred habitat of the wandering shrew (Banfield 1974).

Status

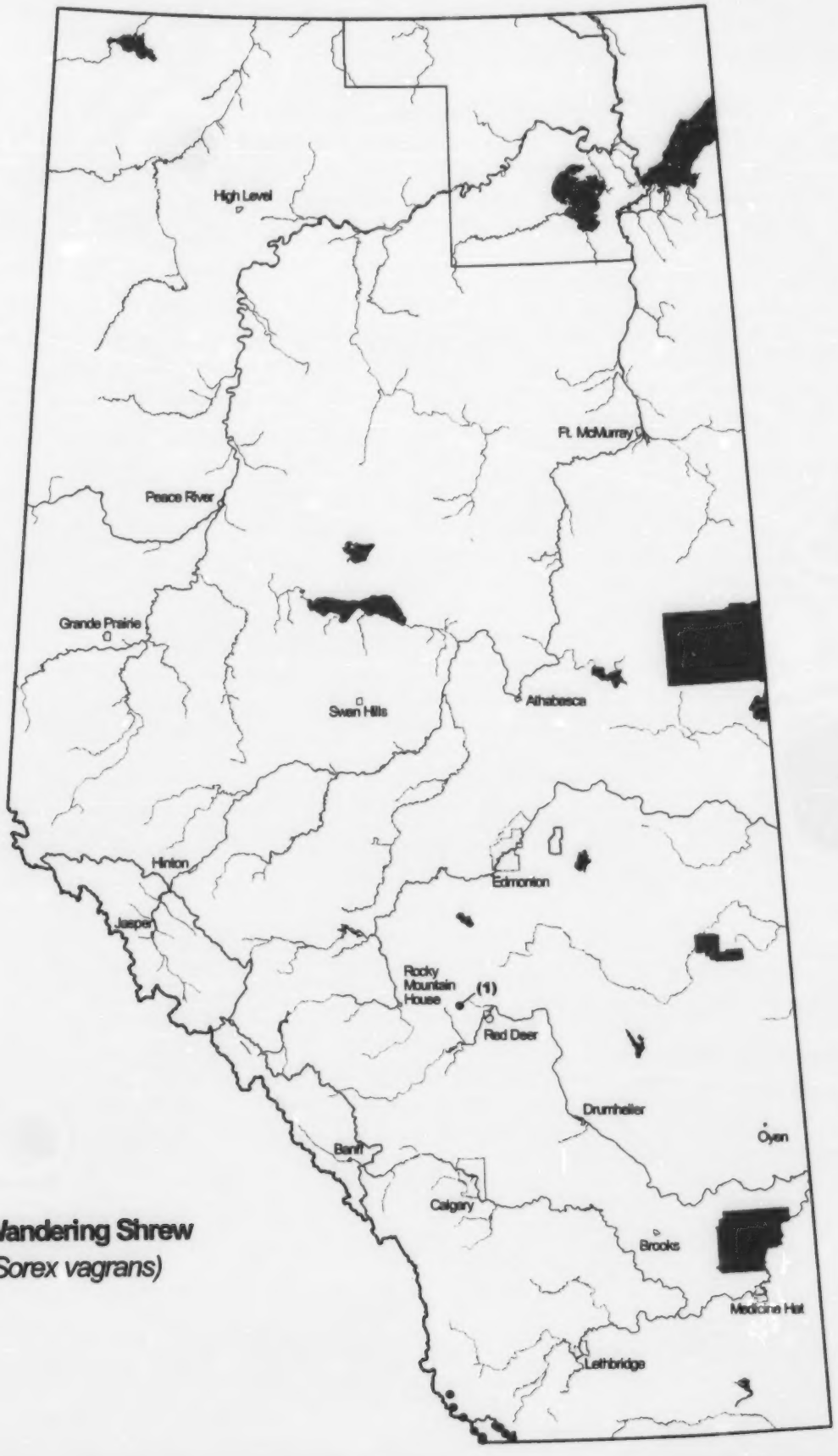
Smith (1993) considered the status of the wandering shrew to be 'not known'. The species was listed as 'Yellow B' in the 1996 Status of Alberta Wildlife review (Alberta Wildlife Management Division 1996) and is expected to be classified as *May Be At Risk* in the pending 2000 status review (G. Court, pers. comm.).

Distribution

In Alberta, the wandering shrew appears most frequently in the Rocky Mountain Natural Region, with a few records from the parkland region of Waterton Lakes National Park (Wallis and Wershler 1997). The only records of wandering shrews in Alberta are from the extreme southwestern corner of the province. They have been found throughout Waterton Lakes National Park and approximately 30 km north of the park boundary into the West Castle area (Smith 1988). In the 1997 Waterton Lakes National Park Ecological Land Classification project, 18 new observations for this species were recorded (Wallis and Wershler 1997). Previously recorded only in the West Castle area (Smith 1993), these records extend the wandering shrew's known range by nearly 40 km. Also of note is the fact that four records (UAMZ M9468, M9471, M9472, M9612) were taken from the Aspen Parkland Natural Region in Waterton Lakes. Record (1) is a specimen (ROM 29542) from the Royal Ontario Museum collected at Sylvan Lake on 3 July 1929. The identification of this specimen was confirmed by the museum. However, the specimen was said to be in very poor shape and was not considered by the museum to be a definitive specimen (S. Woodward, pers. comm.).

Table 2. Source of mapped records

Data Source	Number of records represented
Wallis and Wershler (1997)	18
Provincial Museum of Alberta (PMA)	7
Royal Ontario Museum (ROM)	1



Wandering Shrew
(Sorex vagrans)

Long-eared Bat (*Myotis evotis*)

Occuring in both the Grassland and the Rocky Mountain Natural Regions, the long-eared bat roosts under rocky outcrops or within rock crevices. Holloway (1998) found several long-eared bats roosting in crevices of large sandstone boulders. In the grasslands, suitable habitat is generally found only in river valleys, coulees, and steep cliffs, while in the Rocky Mountains appropriate habitat is more readily available.

Status

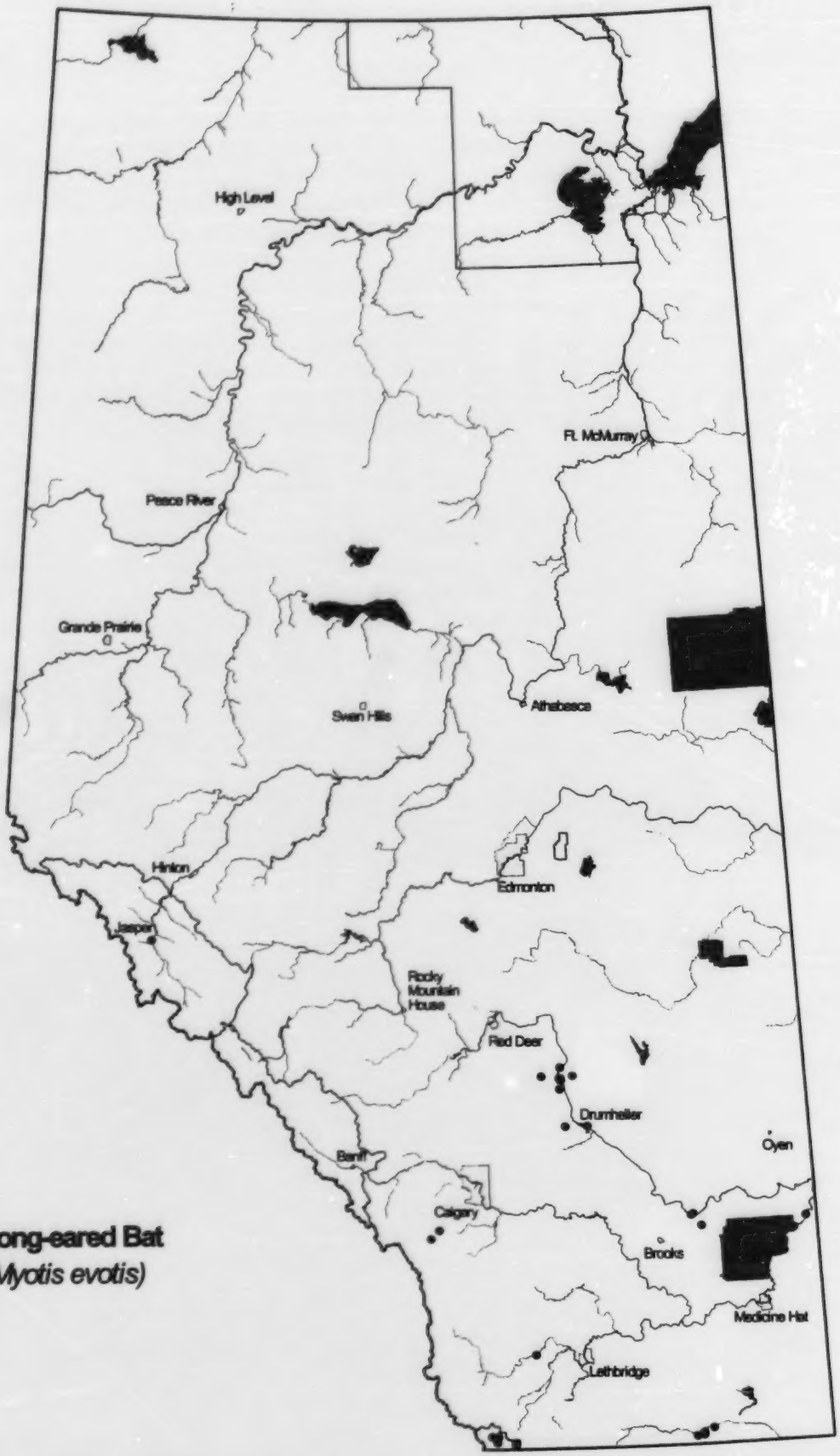
Smith (1993) considered long-eared bats to be uncommon to rare. The species was listed as 'Status Undetermined' in the 1996 Status of Alberta Wildlife review (Alberta Wildlife Management Division 1996) and is expected to be classified as *Secure* in the pending 2000 status review (G. Court, pers. comm.).

Distribution

In Alberta's grasslands, long-eared bats are confined to river valleys, with several specimens being taken along the Milk River. Observations of this species have also been made along the Red Deer River from the Saskatchewan border upstream to Dry Island Buffalo Jump Provincial Park. Additionally, this species has been found along the South Saskatchewan River from Empress upstream to the Suffield National Wildlife Area, and along the Oldman River upstream of Lethbridge. In the mountains, long-eared bats occur from Waterton Lakes National Park, north through Banff to Jasper National Park. In a project undertaken in the Kananaskis Valley, long-eared bats were found to be the most prevalent bat in the study area (Barclay 1991).

Table 3. Source of mapped records

Data source	Number of records represented
Holloway (1998)	48
Provincial Museum of Alberta (PMA)	27
Reynolds *et al.* (1999)	9
Canadian Museum of Nature (CMN)	8
Royal Ontario Museum (ROM)	4
University of Alberta Museum of Zoology (UAMZ)	4
Saunders (1989)	1
University of Saskatchewan Museum of Natural Sciences (USMNS)	1
Wallis and Wershler (1997)	1



Long-eared Bat
(Myotis evotis)

Long-legged Bat (*Myotis volans*)

Long-legged bats are restricted to areas with suitable roosting habitat. In the grasslands, habitat restriction confines this species to river valleys with rocky outcrops and rock crevices, although there are records of these bats roosting under the shingles of old buildings (Reynolds *et al.* 1999). In the Rocky Mountains, suitable habitat is more readily available and large concentrations of these bats can be found hibernating in some mountain caves (Smith 1979).

Status

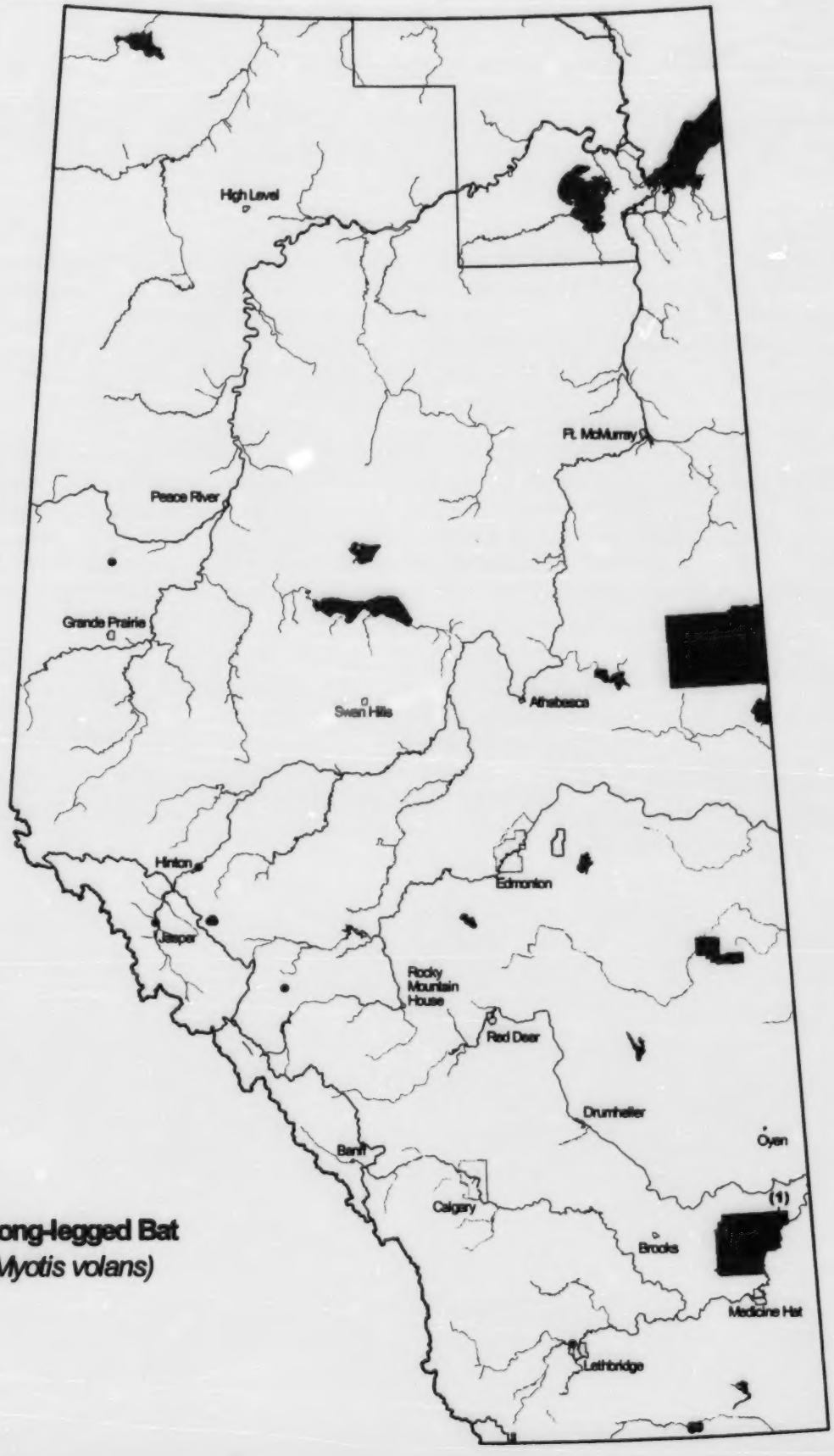
Smith (1993) considered the long-legged bat to be 'sporadically common to scarce'. The species was listed as 'Status Undetermined' in the 1996 Status of Alberta Wildlife review (Alberta Wildlife Management Division 1996) and is expected to remain classified as *Status Undetermined* in the pending 2000 status review (G. Court, pers. comm.).

Distribution

The long-legged bat is found from the Milk River valley in the south (Saunders 1989) north through Lethbridge and along the Rocky Mountains to Spirit River. Record (1) is a record of a single bat from the Suffield National Wildlife Area captured in July 1995 (Reynolds *et al.* 1999). This was the only record of this species out of 86 bats captured during the course of this project. However, this record is significant as it is nearly 190 km northeast of previous records known from Smith (1993).

Table 4. Source of mapped records

Data source	Number of records represented
Provincial Museum of Alberta (PMA)	51
University of Alberta Museum of Zoology (UAMZ)	6
Canadian Museum of Nature (CMN)	1
Reynolds *et al.* (1999)	1
Saunders (1989)	1
National Museum of Natural History (NMNH)	1



Long-legged Bat
(Myotis volans)

Western Small-footed Bat (*Myotis ciliolabrum*)

The western small-footed bat is Alberta's smallest bat. This bat is confined to rocky outcrops and crevices (Smith 1993) in the province's southern river valleys.

Status

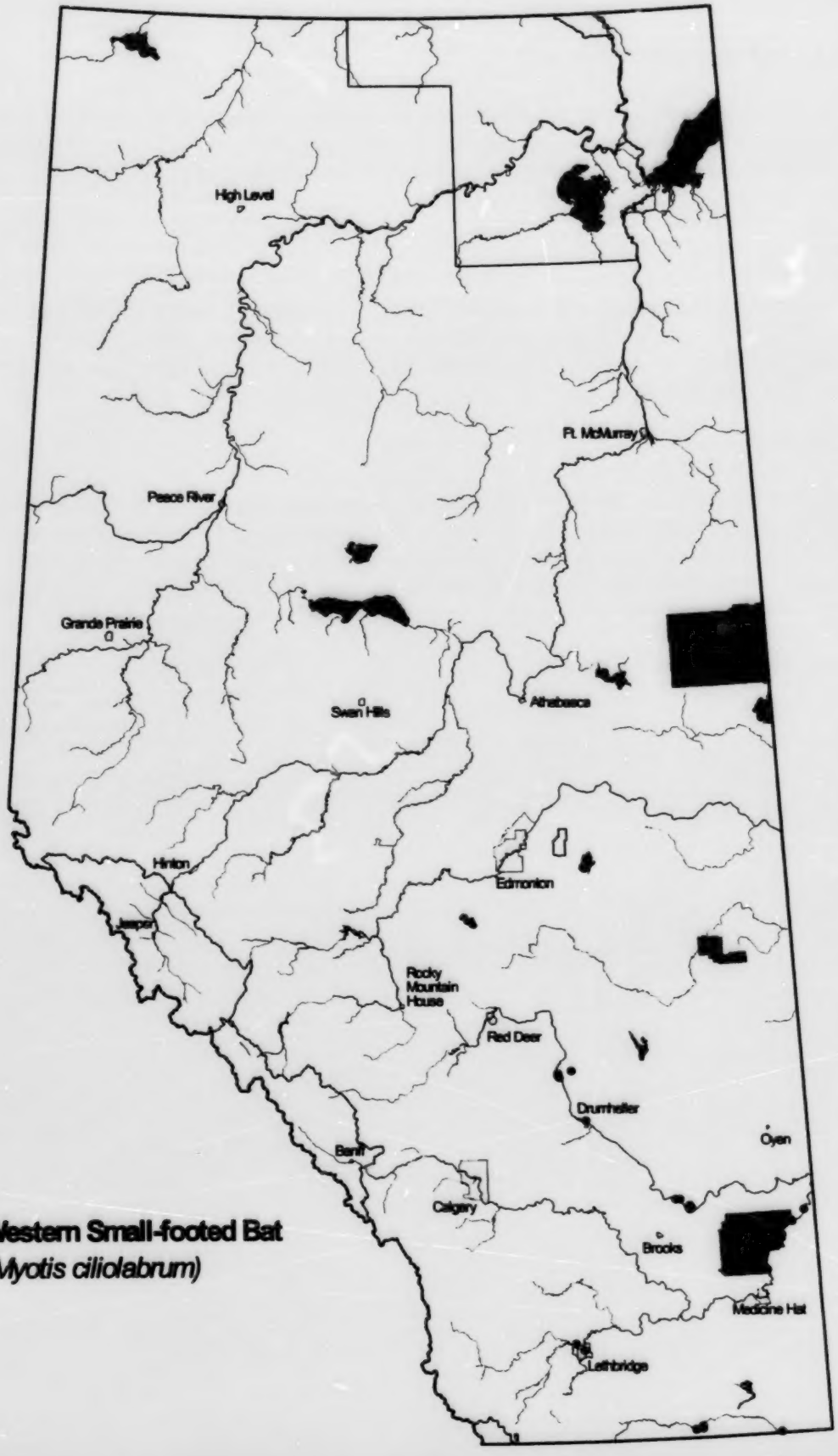
Smith (1993) considered the western small-footed bat to be 'common' in isolated areas but 'generally uncommon' throughout its range. The species was listed as 'Yellow B' in the 1996 Status of Alberta Wildlife review (Alberta Wildlife Management Division 1996) and is expected to be classified as *Sensitive* in the pending 2000 status review (G. Court, pers. comm.).

Distribution

The western small-footed bat only inhabits the Grassland Natural Region of Alberta. In the south it is found in the Milk River valley. It also found along the Red Deer River from Empress to Rumsey (Schowalter and Dorward 1978) and along the South Saskatchewan and Oldman Rivers from the Saskatchewan border to Lethbridge. During a study at the Suffield National Wildlife Area in 1995 and 1996, 43 of the 86 bats captured were western small-footed bats, making it the most abundant species caught during the course of that project (Reynolds *et al.* 1999).

Table 5. Source of mapped records

Data source	Number of records represented
Holloway (1998)	87
Provincial Museum of Alberta (PMA)	35
Reynolds *et al.* (1999)	15
Canadian Museum of Nature (CMN)	4
University of Alberta Museum of Zoology (UAMZ)	3
Saunders (1989)	1



Western Small-footed Bat
(Myotis ciliolabrum)

Hoary Bat (*Lasiurus cinereus*)

The hoary bat is a tree dweller, roosting among the leaves or under the bark of either coniferous or deciduous trees. Canada's largest bat, this species is generally a solitary creature that undertakes a long fall migration to its wintering grounds in the southern United States (Banfield 1974).

Status

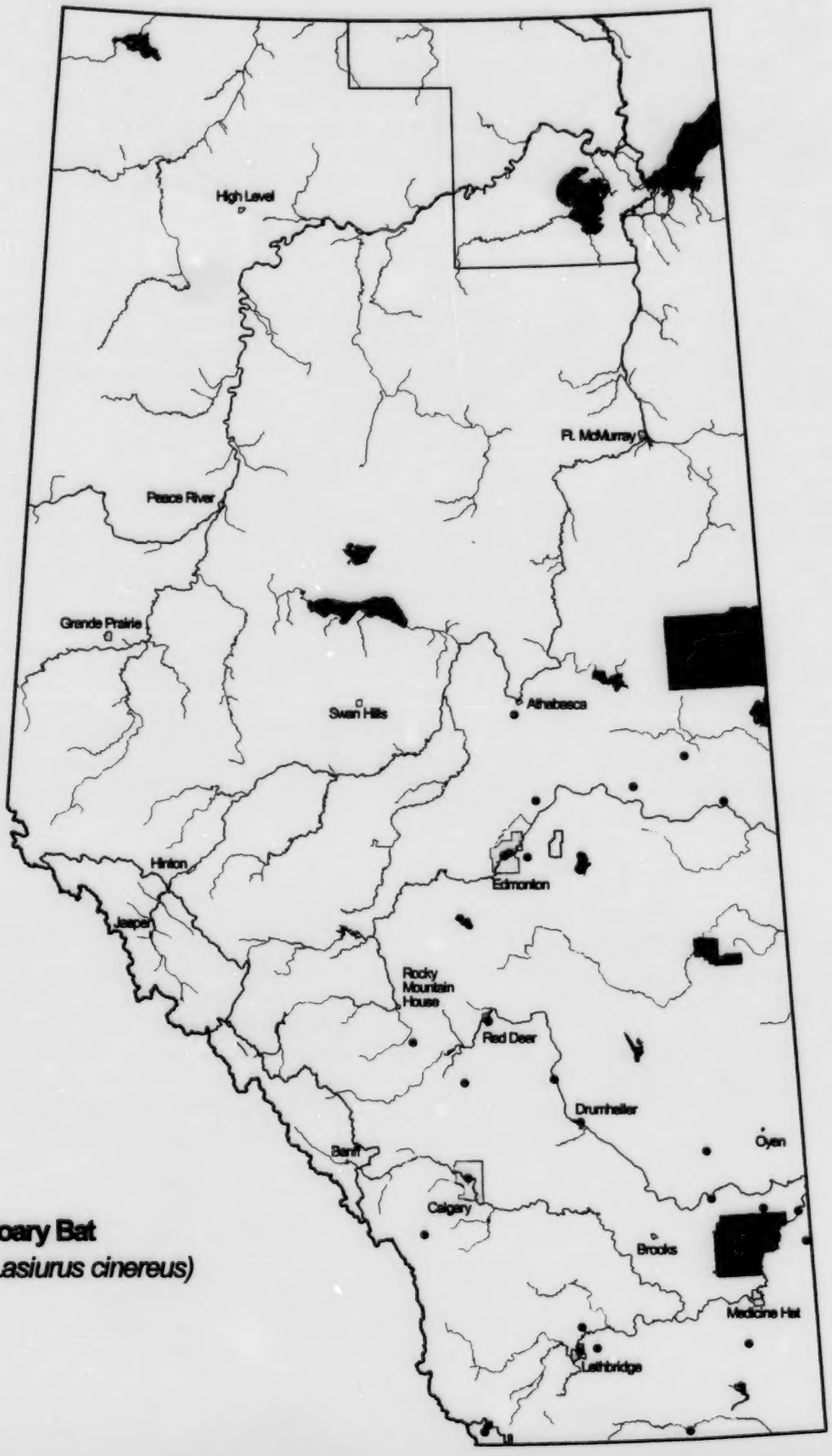
Smith (1993) considered the hoary bat to be 'relatively common'. The species was listed as 'Status Undetermined' in the 1996 Status of Alberta Wildlife review (Alberta Wildlife Management Division 1996) and is expected to be classified as *Secure* in the pending 2000 status review (G. Court, pers. comm.).

Distribution

The hoary bat occurs in Alberta from the United States border, north along the Saskatchewan border in the east, to the Beaver River. In the west it has been found from Waterton Lakes National Park through Rocky Mountain House to Athabasca. Smith (1993) reported two additional records from approximately 50 and 90 km north of Athabasca, along the Athabasca River. These specimen records were not located during the course of this project.

Table 6. Source of mapped records

Data source	Number of records represented
Provincial Museum of Alberta (PMA)	29
Holloway (1998)	6
University of Alberta Museum of Zoology (UAMZ)	5
Reynolds *et al.* (1999)	4
Royal Ontario Museum (ROM)	2
Saunders (1989)	1
Schowalter and Digby (1999)	1
University of Saskatchewan Museum of Natural Sciences (USMNS)	1
Wallis and Wershler (1997)	1



Hoary Bat
(Lasiurus cinereus)

Franklin's Ground Squirrel (*Spermophilus franklinii*)

Occurring mainly in Alberta's Aspen Parkland Natural Region, Franklin's ground squirrels are particularly fond of open poplar bluffs and forest edges (Banfield 1974). Unlike many species of ground squirrels, this species is not at home on the open prairie, preferring to remain concealed under a variety of tall grasses and shrubs.

Status

Smith (1993) considered the Franklin's ground squirrel to be 'uncommon'. The species was listed as 'Status Undetermined' in the 1996 Status of Alberta Wildlife review (Alberta Wildlife Management Division 1996) and is expected to remain classified as *Status Undetermined* in the pending 2000 status review (G. Court, pers. comm.).

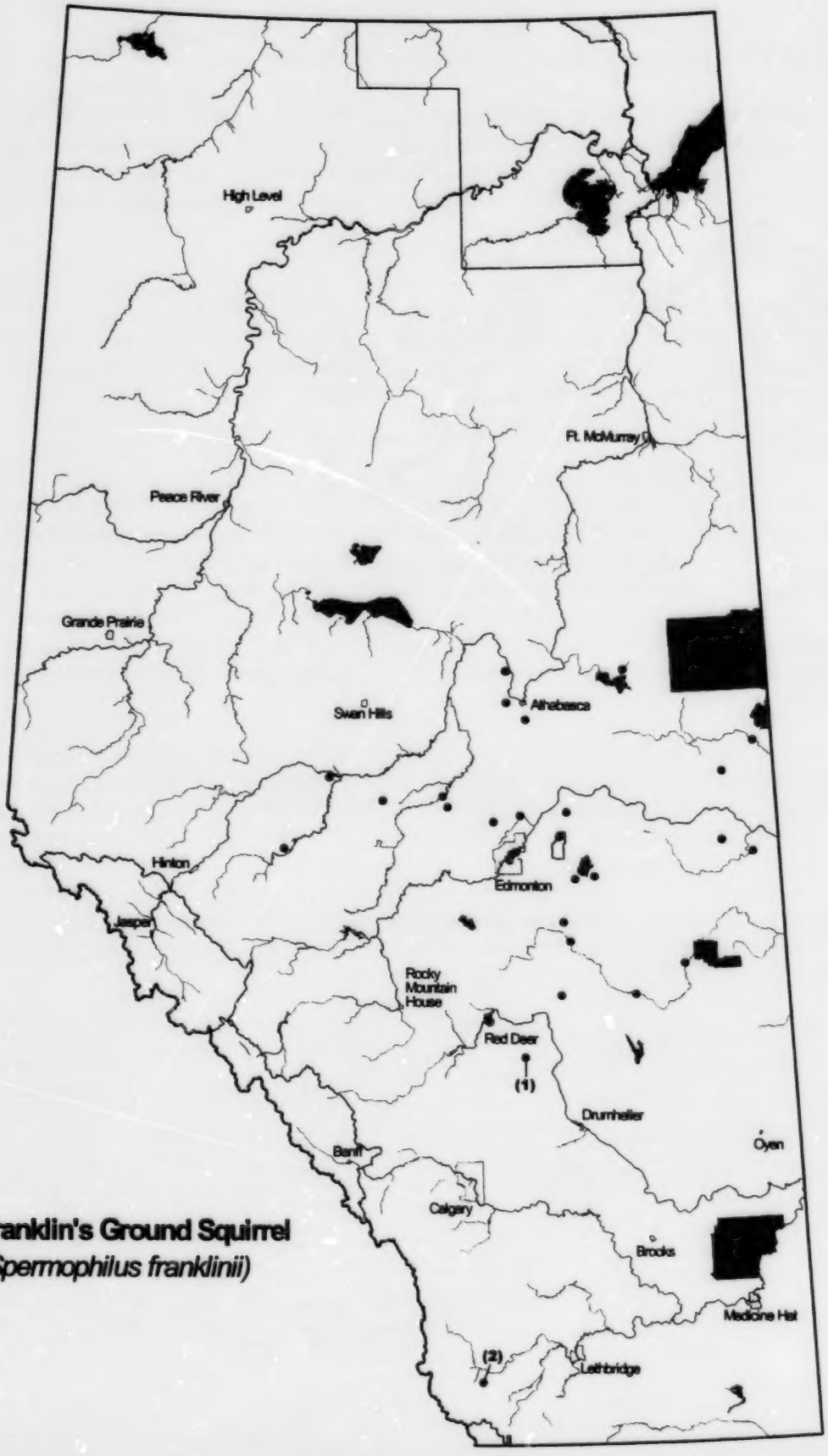
Distribution

In Alberta, Franklin's ground squirrels occur from the Saskatchewan border at Cold Lake northwest through Lac La Biche and Athabasca, then southwest to Whitecourt and Edson. Their southern and western limits extend from Provost, west along the parkland belt to Ghostpine Creek, and north through Red Deer to Edmonton. Record (1) is a specimen (UAMZ 9962) that was collected by Wayne Roberts at Ghostpine Creek, south of Highway 560 in 1998. This record is of importance as it is approximately 45 km southeast of Smith's (1993) records from this latitude.

Record (2) is an extralimital record from Pincher Creek (REDP RM02611) housed in the Redpath Museum at McGill University. Collected by Edward Warren, the collection date for this specimen was given only as "pre 1900". The museum was contacted, but they were unable to confirm the identity of this specimen.

Table 7. Source of mapped records

Data source	Number of records represented
Provincial Museum of Alberta (PMA)	17
Canadian Museum of Nature (CMN)	13
University of Alberta Museum of Zoology (UAMZ)	12
Royal Ontario Museum (ROM)	9
National Museum of Natural History (NMNH)	3
Redpath Museum (REDP)	1



Franklin's Ground Squirrel
(Spermophilus franklinii)

Olive-backed Pocket Mouse (*Perognathus fasciatus*)

One of Alberta's smallest mice, the olive-backed pocket mouse is an animal of the short grass prairie. Found in areas with sandy soil, this species is strictly nocturnal and solitary in nature (Banfield 1974). Researchers have had little success in capturing it, however it is found readily in great horned owl pellets taken from areas of suitable habitat (Schowalter and Digby 1999).

Status

Smith (1993) stated that the olive-backed pocket mouse is "typically, ...a scarce animal". The species was listed as 'Yellow B' in the 1996 Status of Alberta Wildlife review (Alberta Wildlife Management Division 1996) and is expected to be classified as *Sensitive* in the pending 2000 status review (G. Court, pers. comm.).

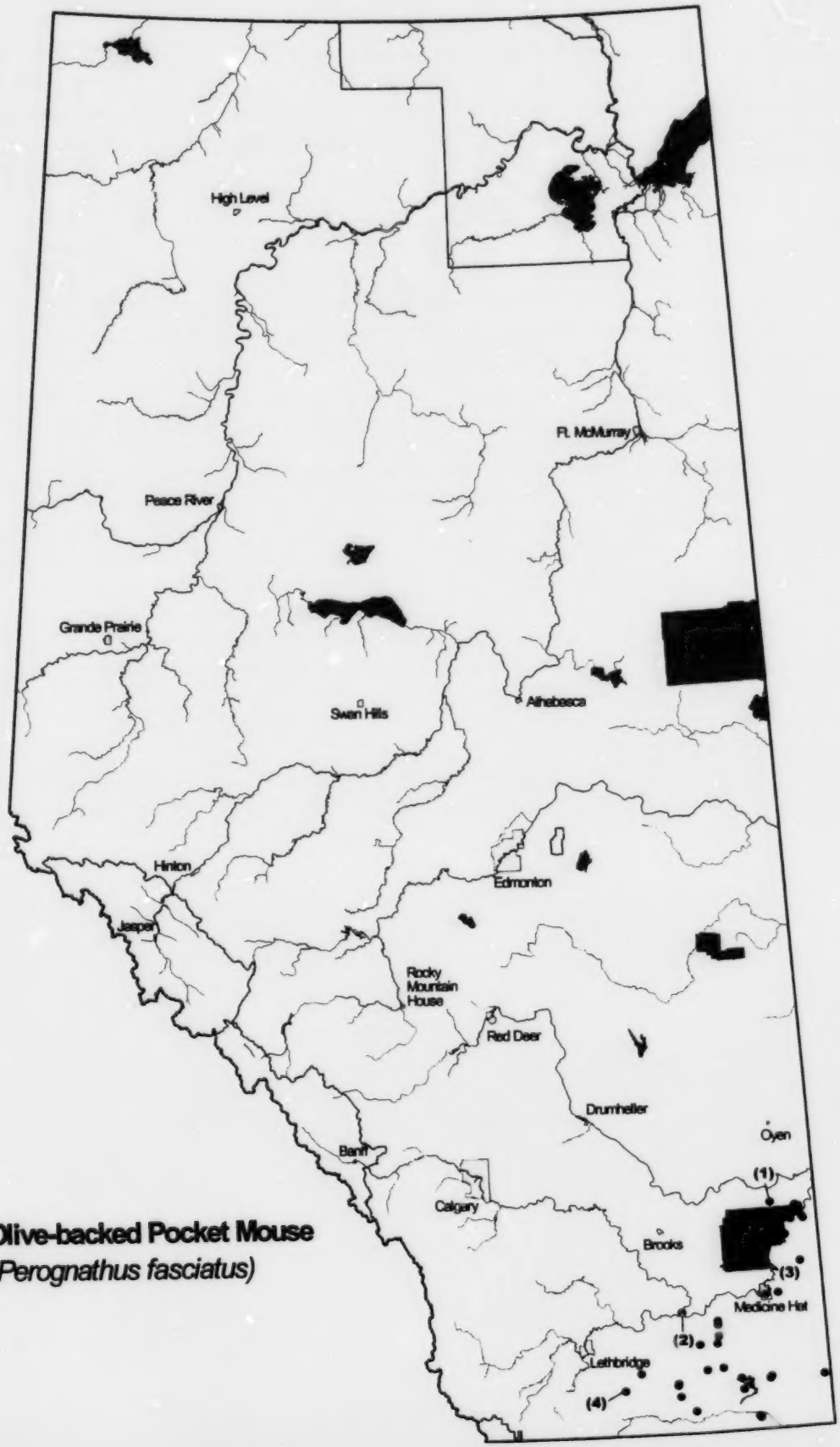
Distribution

In Alberta, olive-backed pocket mice are found only in the southeast corner of the province (Smith 1969). They occur from Empress, southwest to the confluence of the Bow and Oldman Rivers, then south, through Crow Indian Lake, to the United States border. The distribution of the olive-backed pocket mouse is not continuous throughout its range. It is found most frequently in areas with sandy soil. Of the mapped records, four are of particular interest. Record (1) is representative of 34 individual pocket mice (UAMZ M9950) collected from owl pellets near Cavendish (Schowalter and Digby 1999). This is the most northerly documented record for this species in Alberta.

Record (2), a specimen (UAMZ M9038) collected in 1975 at Grand Forks is also of note. The species identification and locality for this specimen were confirmed (W. Roberts, pers. comm.), extending the range from Smith (1993) by approximately 50 km to the northwest. Extensive work done at Canadian Forces Base Suffield National Wildlife Area from 1994 to 1996 also extended the range of the olive-backed pocket mouse (Reynolds *et al.* 1999). Two specimens (PMA 95.8.89, 95.30.7), represented by record (3), extend the range in Smith (1993) from this latitude across to the west side of the South Saskatchewan River. Finally, record (4) is of a single pocket mouse found in an owl pellet in Middle Coulee (Schowalter 2000b). This record is approximately 40 km west of any previously known records.

Table 8. Source of mapped records

Data source	Number of records represented
Smith (1981)	96
Schowalter and Digby (1999)	34
Provincial Museum of Alberta (PMA)	31
Schowalter (2000a)	29
University of Alberta Museum of Zoology (UAMZ)	6
Moore (1952)	2
Canadian Museum of Nature (CMA)	1
Schowalter (2000b)	1



Olive-backed Pocket Mouse
(Perognathus fasciatus)

Western Harvest Mouse (*Reithrodontomys megalotis*)

The western harvest mouse exhibits a preference for areas with dense ground cover. Nocturnal in nature, its ideal habitat lies within tallgrass prairies comprised of a variety of shrubs, sagebrush, and other dense vegetation.

Status

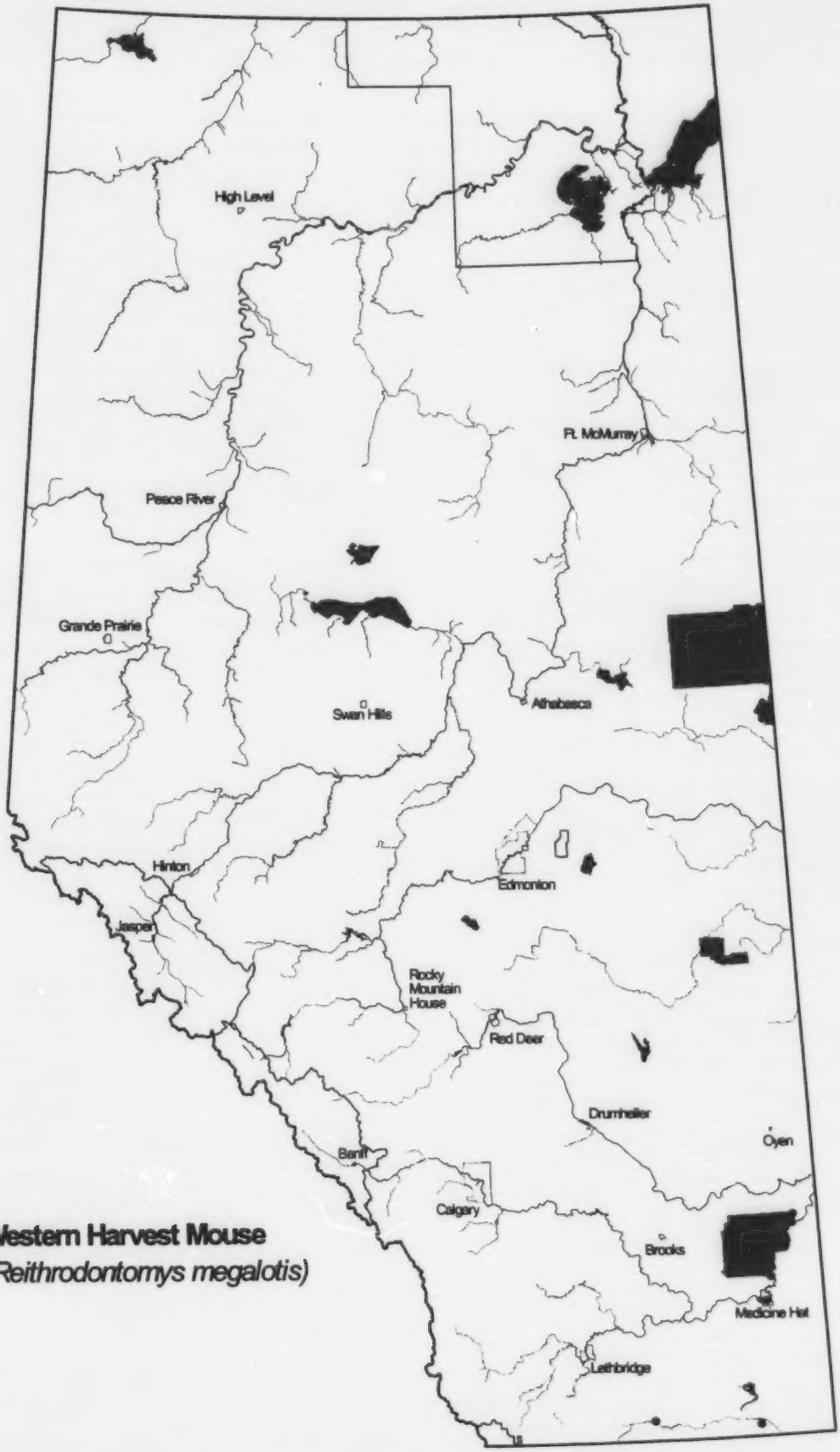
Smith (1993) considered the western harvest mouse to be 'scarce'. The species was classified as 'Yellow B' in the 1996 Status of Alberta Wildlife review (Alberta Wildlife Management Division 1996) and is expected to be classified as *Status Undetermined* in the pending 2000 status review (G. Court, pers. comm.).

Distribution

The Alberta population of western harvest mice is confined to the southeastern corner of the province. Very little is known about the distribution of these mice in Alberta. Smith (1993) made reference to only three specimens from the province. Wildlife inventory work done at the Canadian Forces Base Suffield National Wildlife Area from 1994 to 1996 extended the range of the western harvest mouse by nearly 80 km, to the northeast corner of the Wildlife Area (Reynolds *et al.* 1999). From there it ranges southwest through the town of Milk River to the United States border. Reynolds *et al.* (1999) trapped 95 western harvest mice during the course of their study. They assessed the overall abundance of this species within the National Wildlife Area as varying from nil to high, depending on habitat type.

Table 9. Source of mapped records

Data source	Number of records represented
Provincial Museum of Alberta (PMA)	81
University of Alberta Museum of Zoology (UAMZ)	2
Moore (1952)	1



Western Harvest Mouse
(Reithrodontomys megalotis)

Northern Grasshopper Mouse (*Onychomys leucogaster*)

With a diet consisting of approximately 90% animal matter, northern grasshopper mice are "considered to be predatory carnivores" (Reynolds *et al.* 1999). This species occurs in a wide variety of habitats, from shortgrass prairie in the south, to areas with extensive aspen bluffs in the east-central part of the province (Schowalter and Digby 1997).

Status

Smith (1993) believed the northern grasshopper mouse to be 'relatively common'. The species was listed as 'Yellow B' in the 1996 Status of Alberta Wildlife review (Alberta Wildlife Management Division 1996) and is expected to be classified as *Secure* in the pending 2000 status review (G. Court, pers. comm.).

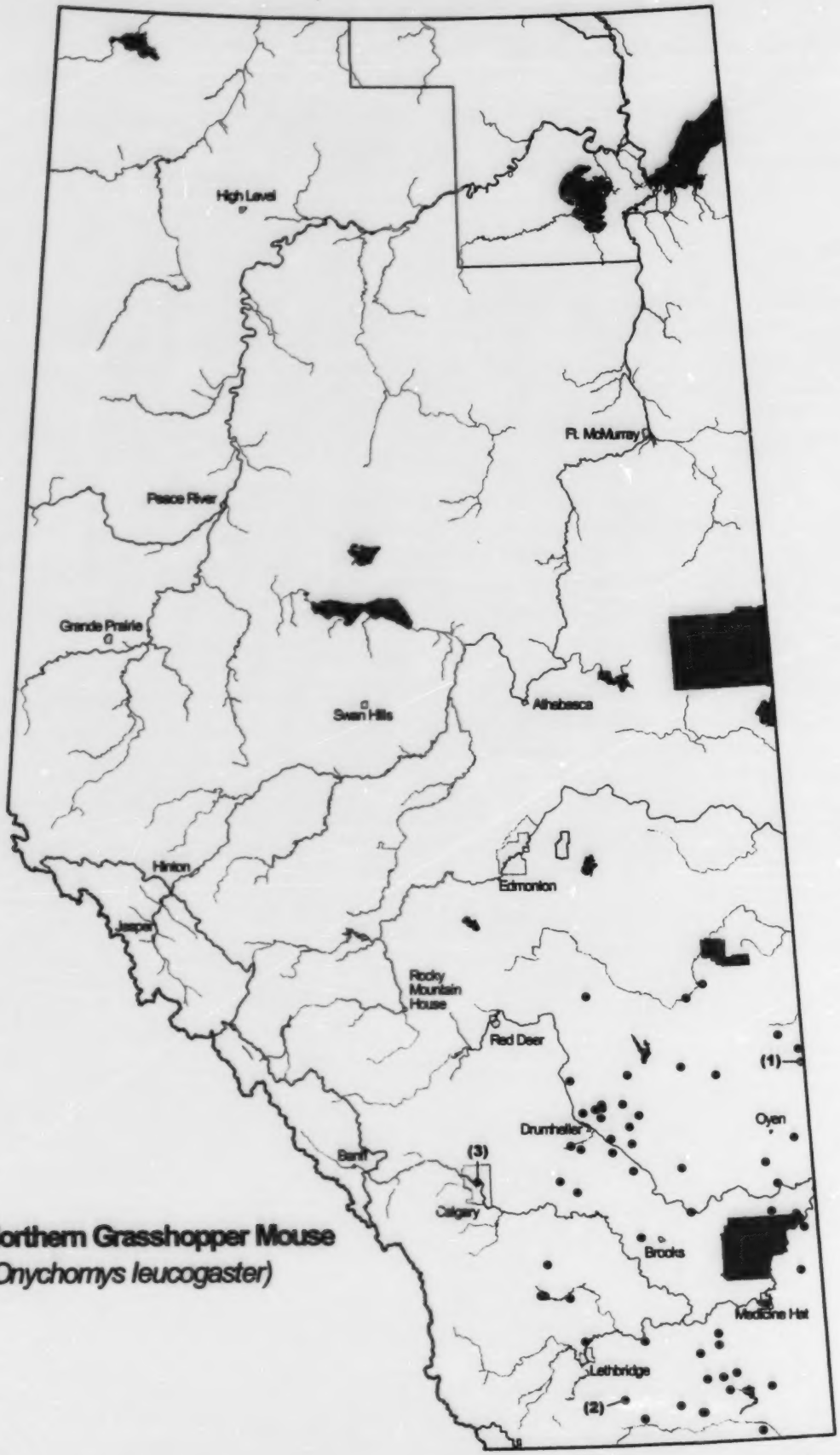
Distribution

In Alberta, the northern grasshopper mouse occurs from the southeastern corner of the province, north to Provost, and then west through Hardisty and Stettler. From there they range south to the United States border through Vulcan, Lethbridge, and Warner. With the exception of one specimen (UAMZ M124) represented by (1), all of the records from north of Oyen are from owl pellets analyzed by either Schowalter and Digby (1997, 1999) or Smith (1992). Also of note is the record represented by (2). This represents 21 individuals found in owl pellets analyzed by Schowalter (2000b). This record is approximately 65 km west of those previously known from Smith (1993) at this latitude.

Record (3) is of two specimens (NMNH 69043, 69044) from the National Museum of Natural History. Collected by J.A. Loring in 1894 at Calgary, the specimens' identity was confirmed by the museum. The locality was also confirmed by the museum from notes in Loring's field catalog, which stated that 69044 was collected from Calgary in some "small bushes on the side of an embankment" (C. Ludwig, pers. comm.). These records are approximately 50 km west of records known from Smith (1993).

Table 10. Source of mapped records

Data source	Number of records represented
Schowalter (2000b)	170
Schowalter and Digby (1997)	98
Smith (1992)	74
Schowalter and Digby (1999)	51
Schowalter (2000a)	25
Smith (1981)	24
Provincial Museum of Alberta (PMA)	19
University of Alberta Museum of Zoology (UAMZ)	10
National Museum of Natural History (NMNH)	3
Canadian Museum of Nature (CMN)	1



Northern Grasshopper Mouse
(Onychomys leucogaster)

Taiga Vole (*Microtus xanthognathus*)

The taiga vole occurs in small colonies within the boreal forest. With an affinity for horsetails, it is found most frequently in black spruce forests with dense ground cover (Douglass 1977). One study on taiga voles (Wolff 1984) found that 90% of their winter food cache consisted of rhizomes from horsetails and fireweed.

Status

Smith (1993) believed the taiga vole to be "rare, possibly extirpated". The species was listed as 'Status Undetermined' in the 1996 Status of Alberta Wildlife review (Alberta Wildlife Management Division 1996) and is expected to be classified as *Status Undetermined* in the pending 2000 status review (G. Court, pers. comm.).

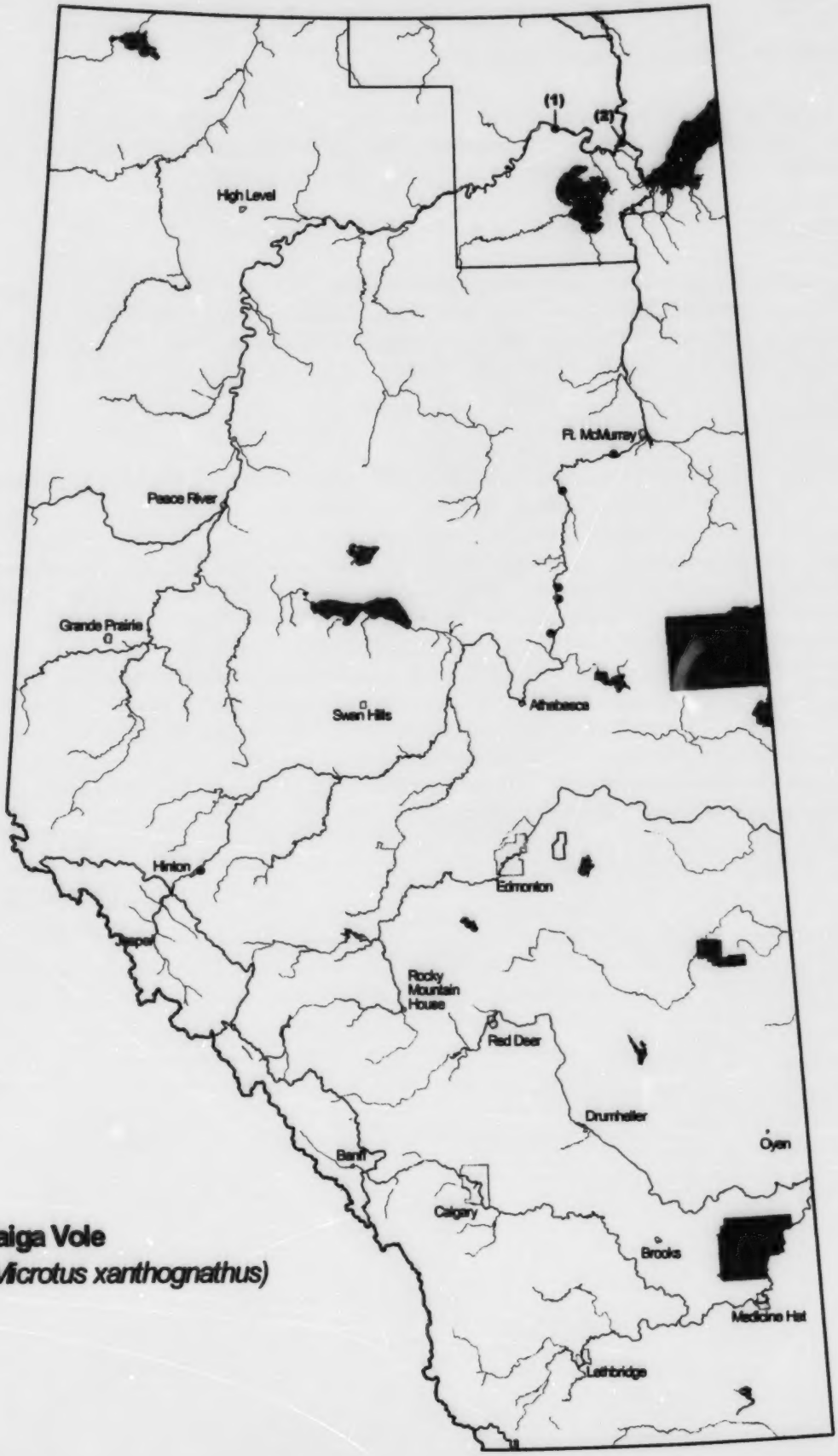
Distribution

The distribution of the taiga vole is known only from a few historical records. Seventeen specimens from six localities were collected along the Athabasca River in the late 1800s and early 1900s. Mapped records of note are those along the Peace River that were absent from Smith (1993). Record (1) represents four specimens (MCZ 18939, 18894, 18896, 18897) collected by J.A. Loring in September 1920 at Peace Point. Species identification and collection location were confirmed by the Museum of Comparative Zoology (M. Rutzmoser, pers. comm.).

Record (2) is a single specimen (MCZ 18895) collected in April 1920 by Driscoll at the mouth of the Peace River. Species identification and collection location were again confirmed by the museum. These five specimens represent the last known occurrence of this species within the province of Alberta.

Table 11. Source of mapped records

Data source	Number of records represented
National Museum of Natural History (NMNH)	17
Museum of Comparative Zoology (MCZ)	5



Taiga Vole
(Microtus xanthognathus)

Prairie Vole (*Microtus ochrogaster*)

The prairie vole is colonial in behavior and is associated with mixed grasses and shrubs in the Aspen Parkland Natural Region. Dry meadows with extensive ground cover and bordered by aspen trees form the preferred habitat of prairie voles (Banfield 1974).

Status

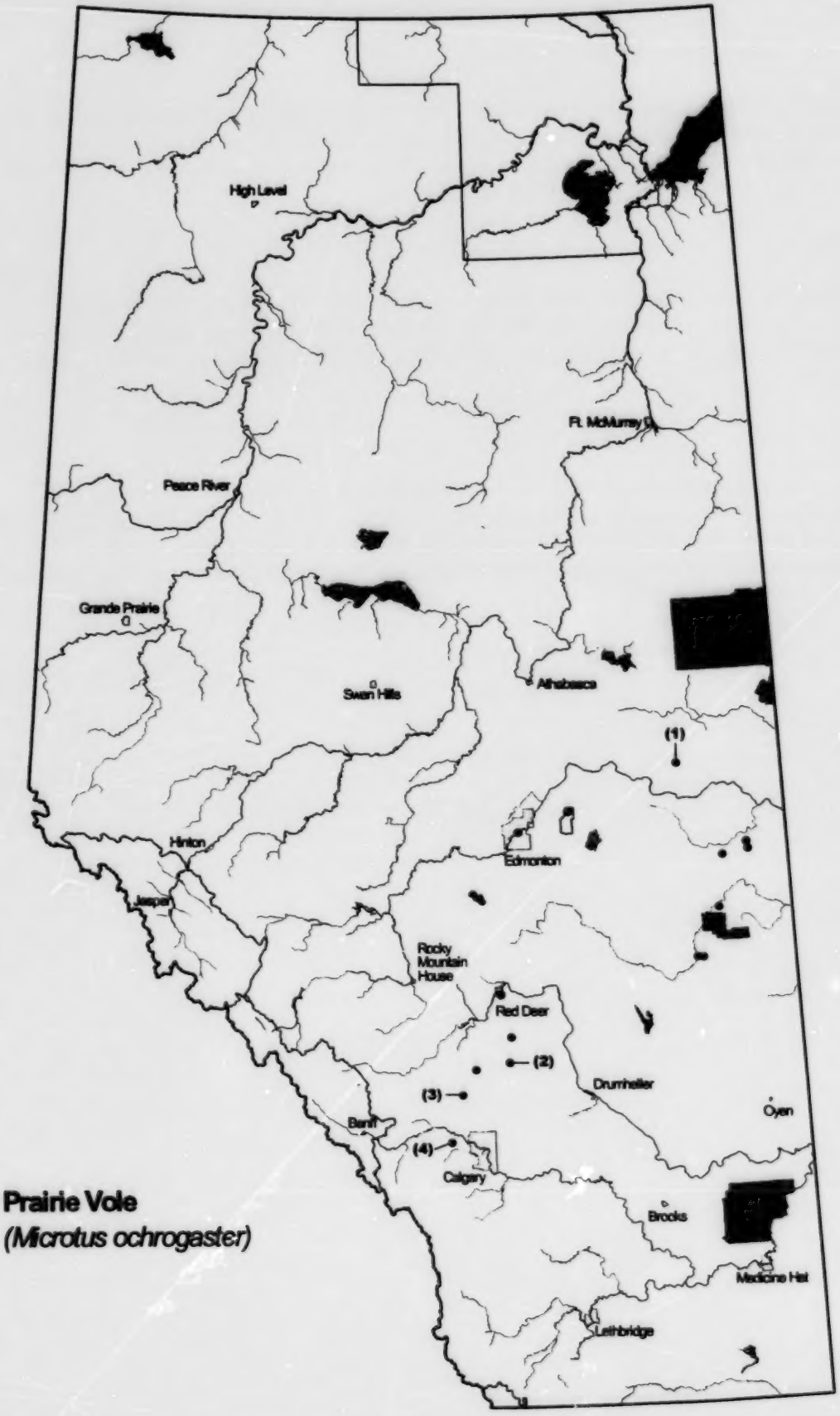
Smith (1993) considered the prairie vole population to be 'sporadic'. The species was listed as 'Status Undetermined' in the 1996 Status of Alberta Wildlife review (Alberta Wildlife Management Division 1996) and is expected to remain classified as *Status Undetermined* in the pending 2000 status review (G. Court, pers. comm.).

Distribution

The prairie vole occupies the Aspen Parkland belt of central Alberta. It has been found west from the Saskatchewan border through St. Paul, Edmonton, and south to Cochrane. From here it ranges east back to the Saskatchewan border through Didsbury, Red Deer, and Amisk. The only recorded observation that falls outside of the Aspen Parkland Natural Region is (1), a specimen (PMA 86.18.6) located at the southern limit of the boreal forest. Schowalter (2000a) found the remains of 20 prairie voles in great horned owl pellets near Stewart Lake. Record (2) is representative of these remains, placing them approximately 60 km south of records known from Smith (1993), and 20 km south of records from previous owl pellet work (Schowalter and Digby 1999), at this longitude. Record (3) represents 23 prairie voles (UAMZ 10017) obtained from owl pellets collected northwest of Madden (Schowalter 2000b). A single specimen (UAMZ 10009), also obtained from an owl pellet, was collected 10 km south of Cochrane and is represented by (4). These two records are, respectively, approximately 25 and 65 km south of previously mapped records in Smith (1993).

Table 12. Source of mapped records

Data source	Number of records represented
University of Alberta Museum of Zoology (UAMZ)	28
Schowalter (2000b)	24
Schowalter (2000a)	20
Schowalter and Digby (1997)	17
Schowalter and Digby (1999)	12
Canadian Museum of Nature (CMN)	6
Royal Ontario Museum (ROM)	5
National Museum of Natural History (NMNH)	3
Provincial Museum of Alberta (PMA)	1



Prairie Vole
(Microtus ochrogaster)

Water Vole (*Microtus richardsoni*)

The largest vole in Canada, the water vole's distribution is limited by its selective choice of habitat. Found in alpine meadows bordered by mountain streams, water voles exhibit a preference for willow and alder environments. They are excellent swimmers, and frequently take to the water to avoid predators (Banfield 1974).

Status

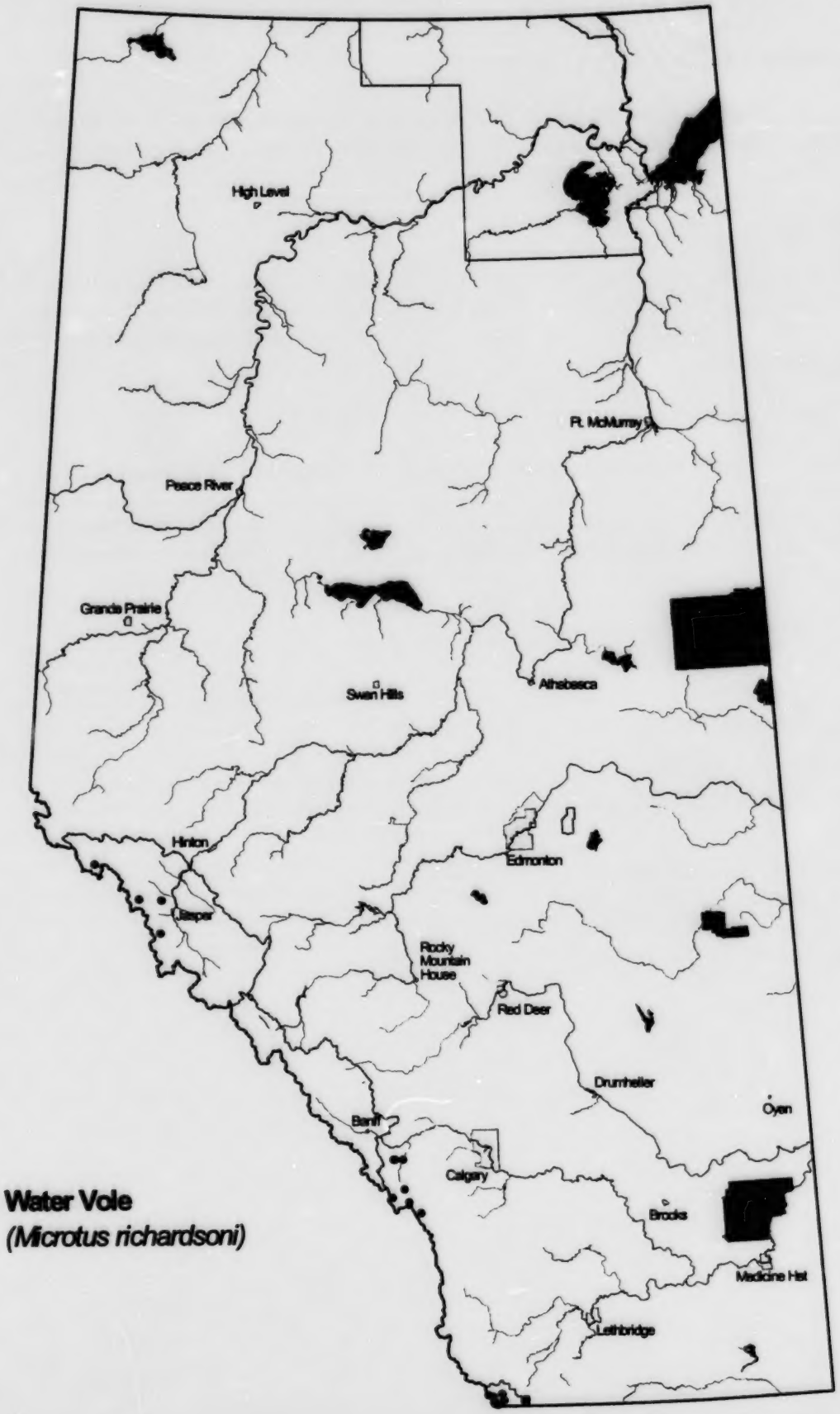
Smith (1993) considered the water vole to be 'uncommon'. The species was listed as 'Yellow B' in the 1996 Status of Alberta Wildlife review (Alberta Wildlife Management Division 1996) and is expected to be classified as *Sensitive* in the pending 2000 status review (G. Court, pers. comm.).

Distribution

In Alberta, water voles are confined to the Rocky Mountains. They are found from the headwaters of the Smoky River in Jasper National Park, south through Banff and Waterton Lakes National Park to the United States border. It is thought that the distribution of water voles is more continuous throughout the Rocky Mountains than is indicated on the accompanying map (Soper 1964, Smith 1993).

Table 13. Source of mapped records

Data source	Number of records represented
Canadian Museum of Nature (CMN)	20
National Museum of Natural History (NMNH)	12
Wallis and Wershler (1997)	11
University of Alberta Museum of Zoology (UAMZ)	8
Provincial Museum of Alberta (PMA)	5



Water Vole
(Microtus richardsoni)

Sagebrush Vole (*Lemmiscus curtatus*)

The sagebrush vole inhabits Alberta's shortgrass prairie. It prefers areas of limited ground cover, and is generally confined to areas with sagebrush and a combination of other grasses (Reynolds *et al* 1999).

Status

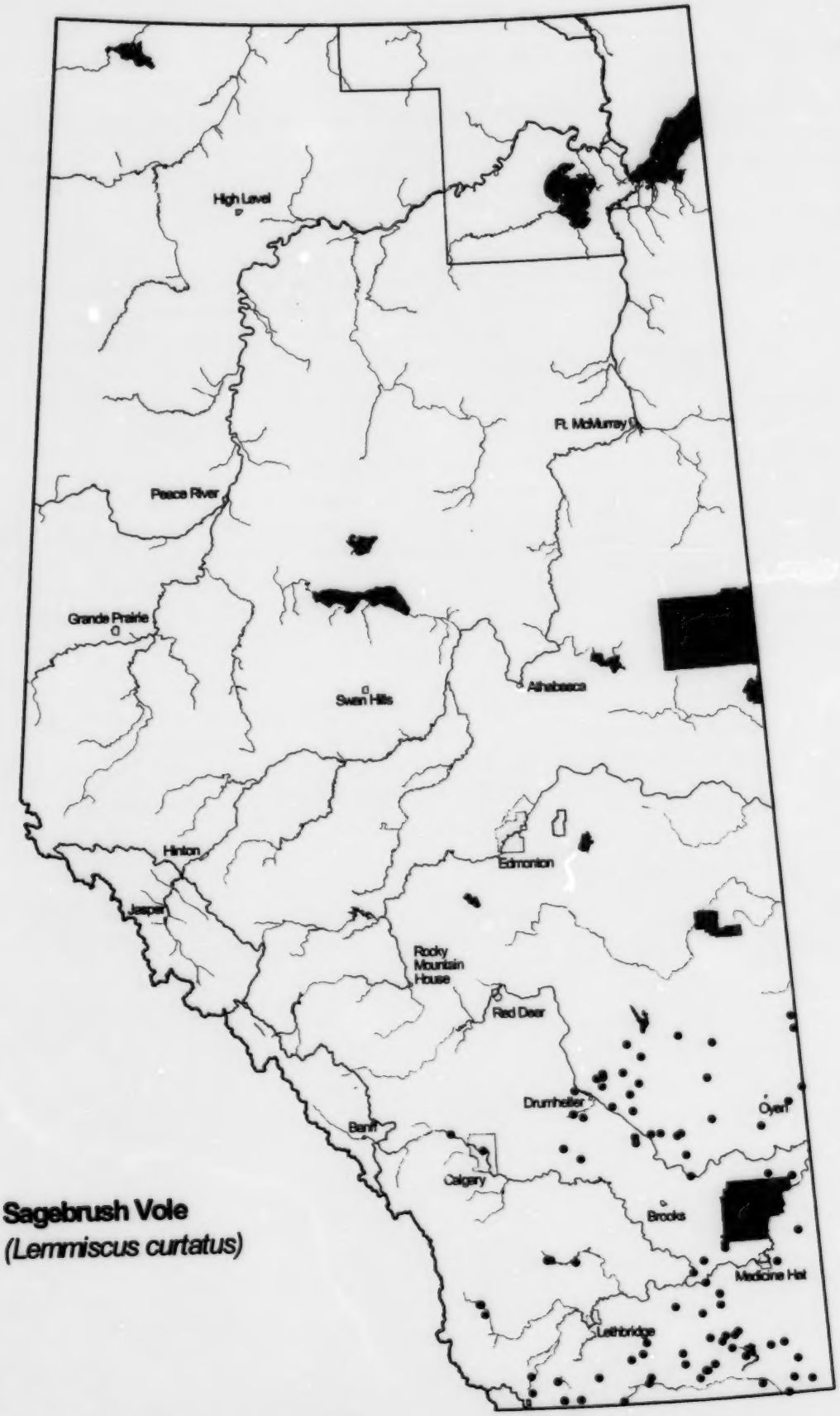
Smith (1993) considered the sagebrush vole to be 'uncommon'. The species was listed as 'Status Undetermined' in the 1996 Status of Alberta Wildlife review (Alberta Wildlife Management Division 1996) and is expected to be classified as *Secure* in the pending 2000 status review (G. Court, pers. comm.).

Distribution

In Alberta, sagebrush voles are found from the southeastern corner of the province, west to Cardston. From here they are found north to Cochrane through the Porcupine Hills, and west through Sullivan Lake to Compeer at the Saskatchewan border. These voles have been found to be quite common in the remains of owl pellets (e.g., Smith 1981, 1990, Schowalter and Digby 1997, 1999).

Table 14. Source of mapped records

Data source	Number of records represented
Smith (1981)	273
Schowalter (2000b)	258
Schowalter and Digby (1999)	158
Schowalter and Digby (1997)	123
Smith (1992)	86
Schowalter (2000a)	65
University of Alberta Museum of Zoology (UAMZ)	34
Provincial Museum of Alberta (PMA)	14
National Museum of Natural History (NMNH)	3
Canadian Museum of Nature (CMN)	3



Sagebrush Vole
(Lemmiscus curtatus)

Brown Lemming (*Lemmus sibiricus*)

In the Rocky Mountains the brown lemming inhabits stream edges and lakeshores in subalpine forests. It can also be found around low lying wet areas in the arctic tundra. In both regions it exhibits a preference for wet areas covered in small shrubs, grasses, and sedges (Banfield 1974).

Status

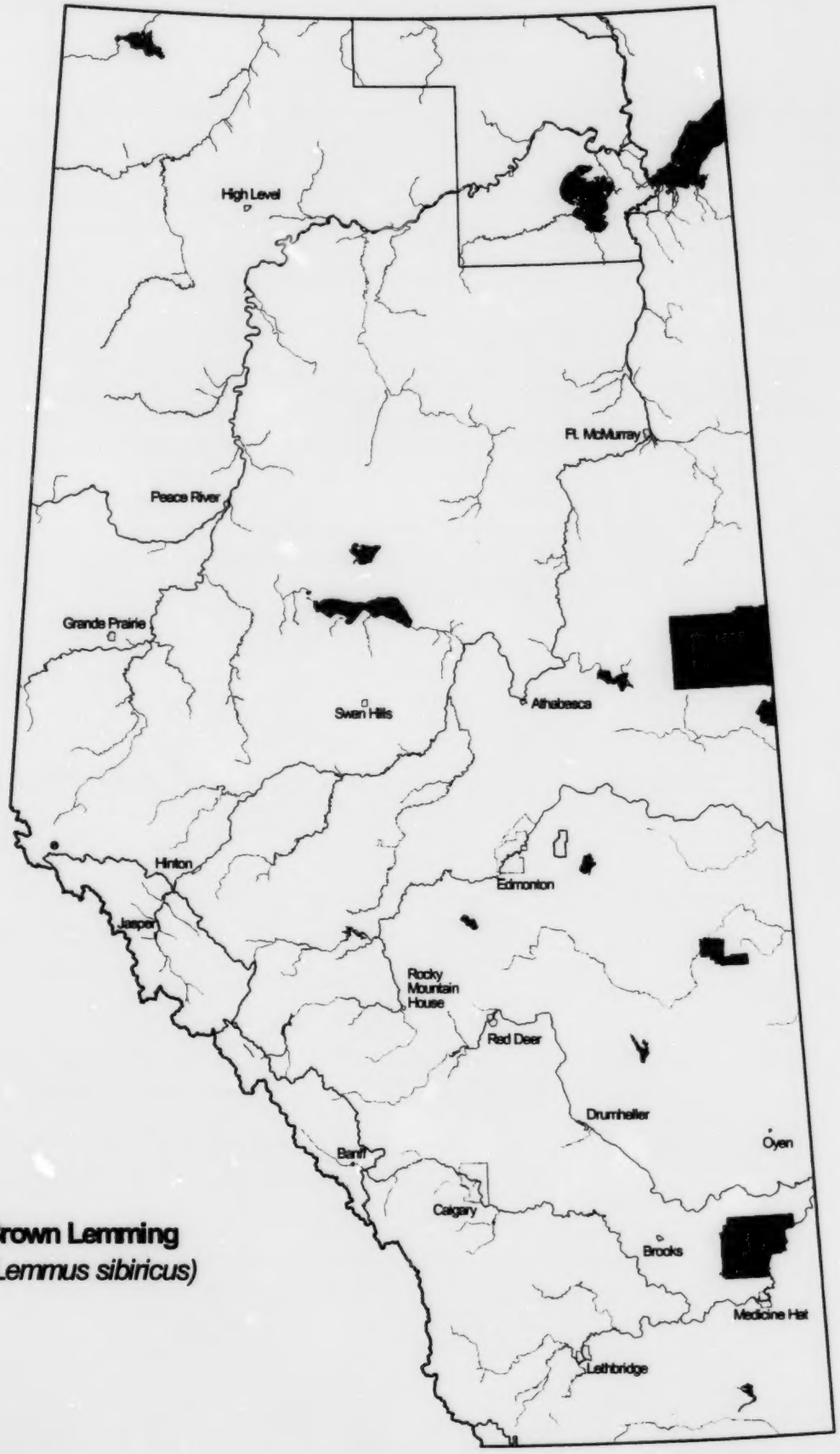
Smith (1993) considered the brown lemming to be 'uncommon'. The species was listed as 'Status Undetermined' in the 1996 Status of Alberta Wildlife review Alberta (Alberta Wildlife Management Division 1996) and is expected to remain classified as *Status Undetermined* in the pending 2000 status review (G. Court, pers. comm.).

Distribution

In Alberta, the brown lemming is known from only a single location in Willmore Wilderness Park. Twenty-one lemming carcasses were counted along a lakeshore at this location. A single specimen (PMA 83.32.1) was collected on 20 October 1983 and verified as a brown lemming by the Provincial Museum of Alberta (Smith and Edmonds 1985). A second specimen (42.10.7.11), housed at The Natural History Museum, is thought by some to have been collected within Alberta. It is on the basis of this specimen that Soper (1964) included this species as a part of Alberta's fauna. Mentioned in both Richardson (1828) and Richardson (1829), the collection location from the museum for this specimen is given only as "alpine swamps, latitude 56 degrees...North America" (A. Cabrinovic, pers. comm.). Preble (1908) as quoted in Smith and Edmonds (1985) stated that this specimen was collected "near the headwaters of one of the southern tributaries of the Peace River, or between there and the Jasper House region". How this location was derived is not stated in his account (Smith and Edmonds 1985). There is some question as to whether these vague location descriptions refer to a collection site within Alberta or British Columbia.

Table 15. Source of mapped records

Data source	Number of records represented
Provincial Museum of Alberta (PMA)	1



Brown Lemming
(Lemmus sibiricus)

5.0 DISCUSSION

This study was undertaken in order to compile and summarize the information available on several data deficient small mammal species found within the province of Alberta. A number of the museum records located were previously undocumented. As well, this report demonstrates the value of analyzing owl pellets for small mammal remains. Several range expansions were documented and the results have provided data which allow for more accuracy in determining the provincial status of small mammals.

6.0 MANAGEMENT IMPLICATIONS AND FUTURE DIRECTIONS

The results of this project have demonstrated the important role that owl pellet analysis can play in identifying the distribution and abundance of small mammals. Based on the information collected from owl pellets (e.g., Schowalter and Digby 1999, Schowalter 2000b) the status of at least two species, sagebrush vole and northern grasshopper mouse, will be changed to *Secure* in the upcoming 2000 status review. Researchers have found owl pellet analysis to be a cost effective method of obtaining data on small mammals. As a result, the Alberta Conservation Association, in co-operation with the Alberta Fisheries and Wildlife Management Division, has initiated a large scale collection and analysis of owl pellets from the Prairie and Parkland Natural Regions of Alberta.

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APPENDIX 1. Alberta species records.

Source	Abbreviation
Canadian Museum of Nature	CMN
Museum of Comparative Zoology - Harvard	MCZ
Provincial Museum of Alberta	PMA
Redpath Museum - McGill University	REDP
Royal Ontario Museum	ROM
Smithsonian Institute- National Museum of Natural History	SMITH
University of Alberta Museum of Zoology	UAMZ
University of Saskatchewan Museum of Natural Sciences	USMNS

Column	Description
Latitude (center) / Longitude (center)	The latitude and longitude given represent an estimate of the given locality. These locations were either provided by the source or determined based on a description of the collection locality.
Precision (m)	The precision assigned defines an area around a point indicated by the latitude / longitude (i.e., point +/- precision). A smaller number indicates a more accurate location. Precision was either estimated based on the location description or derived from location units as follows:
	Location units / **Precision (m)**
	LSD-section-township-range-meridian / 300
	¼ section-section-township-range-meridian / 600
	section-township-range-meridian / 1200
	township-range-meridian / 6900
	UTM coordinates / 100
	degrees-minutes / 800
	general description location (eg. the town of Bashaw) / 5000
Approx. ATS	Approximate ATS is the legal land location that encompasses the point indicated by the latitude and longitude.

Prairie Shrew *(Sorex haydeni)*

Source	Specimen ID	Locality	Precision (m)	Latitude (center)	Longitude (center)	Approx. ATS	BSOD Observation ID
CMN	5042	Camrose	6900	52.97	-112.83	46-20-W4	49737
CMN	6843	Isaly	1200	53.39	-110.53	9-51-4-W4	33493
CMN	6846	Islay	1200	53.39	-110.53	9-51-4-W4	33494
PMA	83.24.10	½ mi E and 5 mi N of Sheerness	800	51.57	-111.67	SW-17-30-12-W4	33049
PMA	83.24.44	1 1/2 mi S and 3/4 mi E of Benton	800	51.33	-110.33	SE-27-27-3-W4	33050
PMA	83.24.45	1 1/2 mi S and 3/4 mi E of Benton	800	51.33	-110.33	SE-27-27-3-W4	33051
PMA	83.24.47	5 1/2 mi S of Sibbald	800	51.63	-110.15	NE-1-31-2-W4	33052
PMA	83.24.57	1 1/2 mi S and 3/4 mi E of Benton	800	51.33	-110.33	SE-27-27-3-W4	33053
PMA	83.24.58	1 1/2 mi S and 3/4 mi E of Benton	800	51.33	-110.33	SE-27-27-3-W4	33054
PMA	83.24.59	6 mi N and 1 mi W of Acadia Valley	800	51.25	-110.23	NW-28-26-2-W4	33055
PMA	83.24.6	10 mi E of Rose Lynn	800	51.42	-111.42	SE-25-28-11-W4	33056
PMA	83.31.1	Edmonton	800	53.60	-113.42	SW-25-53-24-W4	33057
PMA	83.37.1	1 mi E and 2 mi S of Gem	800	50.93	-112.17	NW-3-23-16-W4	33058
PMA	84.32.35	Elkwater (Cypress Hills Provincial Park)	800	49.67	-110.27	NW-19-8-2-W4	33059
PMA	84.32.45	Elkwater (Cypress Hills Provincial Park)	800	49.67	-110.27	NW-19-8-2-W4	33060
PMA	84.32.51	3 km W and 2 km S of Alliance	800	52.42	-111.82	NW-4-40-13-W4	33061
PMA	84.32.53	3 km W and 2 km S of Alliance	800	52.42	-111.82	NW-4-40-13-W4	33062
PMA	84.32.54	3 km W and 2 km S of Alliance	800	52.42	-111.82	NW-4-40-13-W4	33063
PMA	86.40.4	Handhills	800	51.57	-112.27	SE-13-30-17-W4	33064
PMA	86.40.5	Handhills	800	51.57	-112.27	SE-13-30-17-W4	33065
PMA	92.17.2	6 mi W and 2 mi N of Delia	800	51.67	-112.52	SE-20-31-18-W4	33066
PMA	95.15.1	C.F.B. Suffield	800	50.58	-110.47	NE-3-19-4-W4	33067
PMA	95.15.2	C.F.B. Suffield	800	50.62	-110.43	SW-24-19-4-W4	33068
PMA	95.15.3	C.F.B. Suffield	800	50.62	-110.43	SW-24-19-4-W4	33069
PMA	95.15.4	C.F.B. Suffield	800	50.63	-110.30	SW-25-19-3-W4	33070
PMA	95.15.5	C.F.B. Suffield	800	50.63	-110.40	SE-30-19-3-W4	33071
PMA	95.29.1	C.F.B. Suffield	800	50.25	-110.63	NE-9-15-5-W4	33072
PMA	95.29.10	C.F.B. Suffield	800	50.25	-110.63	NE-9-15-5-W4	33073
PMA	95.29.100	C.F.B. Suffield	800	50.38	-110.63	SE-33-16-5-W4	33074
PMA	95.29.101	C.F.B. Suffield	800	50.38	-110.63	SE-33-16-5-W4	33075
PMA	95.29.102	C.F.B. Suffield	800	50.30	-110.62	SW-34-15-5-W4	33076
PMA	95.29.103	C.F.B. Suffield	800	50.30	-110.62	SW-34-15-5-W4	33077
PMA	95.29.104	C.F.B. Suffield	800	50.30	-110.62	SW-34-15-5-W4	33078
PMA	95.29.105	C.F.B. Suffield	800	50.30	-110.62	SW-34-15-5-W4	33079
PMA	95.29.106	C.F.B. Suffield	800	50.30	-110.62	SW-34-15-5-W4	33080
PMA	95.29.107	C.F.B. Suffield	800	50.30	-110.62	SW-34-15-5-W4	33081

Prairie Shrew *(Sorex haydeni)*

Source	Specimen ID	Locality	Precision (m)	Latitude (center)	Longitude (center)	Approx. ATS	BSOD Observation ID
PMA	95.29.108	C.F.B. Suffield	800	50.30	-110.62	SW-34-15-5-W4	33082
PMA	95.29.109	C.F.B. Suffield	800	50.30	-110.62	SW-34-15-5-W4	33083
PMA	95.29.11	C.F.B. Suffield	800	50.25	-110.63	NE-9-15-5-W4	33084
PMA	95.29.110	C.F.B. Suffield	800	50.30	-110.62	SW-34-15-5-W4	33085
PMA	95.29.111	C.F.B. Suffield	800	50.30	-110.62	SW-34-15-5-W4	33086
PMA	95.29.112	C.F.B. Suffield	800	50.30	-110.62	SW-34-15-5-W4	33087
PMA	95.29.113	C.F.B. Suffield	800	50.30	-110.62	SW-34-15-5-W4	33088
PMA	95.29.114	C.F.B. Suffield	800	50.30	-110.62	SW-34-15-5-W4	33089
PMA	95.29.12	C.F.B. Suffield	800	50.62	-110.33	SE-22-19-3-W4	33090
PMA	95.29.13	C.F.B. Suffield	800	50.62	-110.33	SE-22-19-3-W4	33091
PMA	95.29.14	C.F.B. Suffield	800	50.62	-110.33	SE-22-19-3-W4	33092
PMA	95.29.15	C.F.B. Suffield	800	50.62	-110.33	SE-22-19-3-W4	33093
PMA	95.29.16	C.F.B. Suffield	800	50.62	-110.33	SE-22-19-3-W4	33094
PMA	95.29.17	C.F.B. Suffield	800	50.62	-110.33	SE-22-19-3-W4	33095
PMA	95.29.18	C.F.B. Suffield	800	50.62	-110.33	SE-22-19-3-W4	33096
PMA	95.29.19	C.F.B. Suffield	800	50.62	-110.33	SE-22-19-3-W4	33097
PMA	95.29.2	C.F.B. Suffield	800	50.25	-110.63	NE-9-15-5-W4	33098
PMA	95.29.20	C.F.B. Suffield	800	50.62	-110.33	SE-22-19-3-W4	33099
PMA	95.29.21	C.F.B. Suffield	800	50.62	-110.33	SE-22-19-3-W4	33100
PMA	95.29.22	C.F.B. Suffield	800	50.60	-110.32	NW-11-19-3-W4	33101
PMA	95.29.23	C.F.B. Suffield	800	50.60	-110.32	NW-11-19-3-W4	33102
PMA	95.29.24	C.F.B. Suffield	800	50.60	-110.32	NW-11-19-3-W4	33103
PMA	95.29.25	C.F.B. Suffield	800	50.60	-110.32	NW-11-19-3-W4	33104
PMA	95.29.26	C.F.B. Suffield	800	50.60	-110.32	NW-11-19-3-W4	33105
PMA	95.29.27	C.F.B. Suffield	800	50.60	-110.32	NW-11-19-3-W4	33106
PMA	95.29.28	C.F.B. Suffield	800	50.60	-110.32	NW-11-19-3-W4	33107
PMA	95.29.29	C.F.B. Suffield	800	50.60	-110.32	NW-11-19-3-W4	33108
PMA	95.29.3	C.F.B. Suffield	800	50.25	-110.63	NE-9-15-5-W4	33109
PMA	95.29.30	C.F.B. Suffield	800	50.60	-110.32	NW-11-19-3-W4	33110
PMA	95.29.31	C.F.B. Suffield	800	50.60	-110.32	NW-11-19-3-W4	33111
PMA	95.29.32	C.F.B. Suffield	800	50.60	-110.32	NW-11-19-3-W4	33112
PMA	95.29.33	C.F.B. Suffield	800	50.60	-110.32	NW-11-19-3-W4	33113
PMA	95.29.34	C.F.B. Suffield	800	50.60	-110.32	NW-11-19-3-W4	33114
PMA	95.29.35	C.F.B. Suffield	800	50.60	-110.32	NW-11-19-3-W4	33115
PMA	95.29.36	C.F.B. Suffield	800	50.60	-110.32	NW-11-19-3-W4	33116
PMA	95.29.37	C.F.B. Suffield	800	50.60	-110.32	NW-11-19-3-W4	33117

Prairie Shrew *(Sorex haydeni)*

Source	Specimen ID	Locality	Precision (m)	Latitude (center)	Longitude (center)	Approx. ATS	BSOD Observation ID
PMA	95.29.38	C.F.B. Suffield	800	50.58	-110.38	NE-5-19-3-W4	33118
PMA	95.29.39	C.F.B. Suffield	800	50.58	-110.38	NE-5-19-3-W4	33119
PMA	95.29.4	C.F.B. Suffield	800	50.25	-110.63	NE-9-15-5-W4	33120
PMA	95.29.40	C.F.B. Suffield	800	50.58	-110.38	NE-5-19-3-W4	33121
PMA	95.29.41	C.F.B. Suffield	800	50.32	-110.62	SW-3-16-5-W4	33122
PMA	95.29.42	C.F.B. Suffield	800	50.32	-110.62	SW-3-16-5-W4	33123
PMA	95.29.43	C.F.B. Suffield	800	50.32	-110.62	SW-3-16-5-W4	33124
PMA	95.29.44	C.F.B. Suffield	800	50.32	-110.62	SW-3-16-5-W4	33125
PMA	95.29.45	C.F.B. Suffield	800	50.32	-110.62	SW-3-16-5-W4	33126
PMA	95.29.46	C.F.B. Suffield	800	50.32	-110.62	SW-3-16-5-W4	33127
PMA	95.29.47	C.F.B. Suffield	800	50.32	-110.62	SW-3-16-5-W4	33128
PMA	95.29.48	C.F.B. Suffield	800	50.32	-110.62	SW-3-16-5-W4	33129
PMA	95.29.49	C.F.B. Suffield	800	50.32	-110.62	SW-3-16-5-W4	33130
PMA	95.29.5	C.F.B. Suffield	800	50.25	-110.63	NE-9-15-5-W4	33131
PMA	95.29.50	C.F.B. Suffield	800	50.32	-110.62	SW-3-16-5-W4	33132
PMA	95.29.51	C.F.B. Suffield	800	50.32	-110.62	SW-3-16-5-W4	33133
PMA	95.29.52	C.F.B. Suffield	800	50.32	-110.62	SW-3-16-5-W4	33134
PMA	95.29.53	C.F.B. Suffield	800	50.32	-110.62	SW-3-16-5-W4	33135
PMA	95.29.54	C.F.B. Suffield	800	50.32	-110.62	SW-3-16-5-W4	33136
PMA	95.29.55	C.F.B. Suffield	800	50.32	-110.62	SW-3-16-5-W4	33137
PMA	95.29.56	C.F.B. Suffield	800	50.32	-110.62	SW-3-16-5-W4	33138
PMA	95.29.57	C.F.B. Suffield	800	50.32	-110.62	SW-3-16-5-W4	33139
PMA	95.29.58	C.F.B. Suffield	800	50.32	-110.62	SW-3-16-5-W4	33140
PMA	95.29.59	C.F.B. Suffield	800	50.32	-110.62	SW-3-16-5-W4	33141
PMA	95.29.6	C.F.B. Suffield	800	50.25	-110.63	NE-9-15-5-W4	33142
PMA	95.29.60	C.F.B. Suffield	800	50.32	-110.62	SW-3-16-5-W4	33143
PMA	95.29.61	C.F.B. Suffield	800	50.32	-110.62	SW-3-16-5-W4	33144
PMA	95.29.62	C.F.B. Suffield	800	50.32	-110.62	SW-3-16-5-W4	33145
PMA	95.29.63	C.F.B. Suffield	800	50.32	-110.62	SW-3-16-5-W4	33146
PMA	95.29.64	C.F.B. Suffield	800	50.32	-110.62	SW-3-16-5-W4	33147
PMA	95.29.65	C.F.B. Suffield	800	50.32	-110.62	SW-3-16-5-W4	33148
PMA	95.29.66	C.F.B. Suffield	800	50.32	-110.62	SW-3-16-5-W4	33149
PMA	95.29.67	C.F.B. Suffield	800	50.32	-110.62	SW-3-16-5-W4	33150
PMA	95.29.68	C.F.B. Suffield	800	50.30	-110.62	SW-34-15-5-W4	33151
PMA	95.29.69	C.F.B. Suffield	800	50.30	-110.62	SW-34-15-5-W4	33152
PMA	95.29.7	C.F.B. Suffield	800	50.25	-110.63	NE-9-15-5-W4	33153

Prairie Shrew *(Sorex haydeni)*

Source	Specimen ID	Locality	Precision (m)	Latitude (center)	Longitude (center)	Approx. ATS	BSOD Observation ID
PMA	95.29.70	C.F.B. Suffield	800	50.30	-110.62	SW-34-15-5-W4	33154
PMA	95.29.71	C.F.B. Suffield	800	50.30	-110.62	SW-34-15-5-W4	33155
PMA	95.29.72	C.F.B. Suffield	800	50.30	-110.62	SW-34-15-5-W4	33156
PMA	95.29.73	C.F.B. Suffield	800	50.30	-110.62	SW-34-15-5-W4	33157
PMA	95.29.74	C.F.B. Suffield	800	50.30	-110.62	SW-34-15-5-W4	33158
PMA	95.29.75	C.F.B. Suffield	800	50.30	-110.62	SW-34-15-5-W4	33159
PMA	95.29.76	C.F.B. Suffield	800	50.30	-110.62	SW-34-15-5-W4	33160
PMA	95.29.77	C.F.B. Suffield	800	50.30	-110.62	SW-34-15-5-W4	33161
PMA	95.29.78	C.F.B. Suffield	800	50.30	-110.62	SW-34-15-5-W4	33162
PMA	95.29.79	C.F.B. Suffield	800	50.30	-110.62	SW-34-15-5-W4	33163
PMA	95.29.8	C.F.B. Suffield	800	50.25	-110.63	NE-9-15-5-W4	33164
PMA	95.29.80	C.F.B. Suffield	800	50.30	-110.62	SW-34-15-5-W4	33165
PMA	95.29.81	C.F.B. Suffield	800	50.30	-110.62	SW-34-15-5-W4	33166
PMA	95.29.82	C.F.B. Suffield	800	50.30	-110.62	SW-34-15-5-W4	33167
PMA	95.29.83	C.F.B. Suffield	800	50.30	-110.62	SW-34-15-5-W4	33168
PMA	95.29.84	C.F.B. Suffield	800	50.30	-110.62	SW-34-15-5-W4	33169
PMA	95.29.85	C.F.B. Suffield	800	50.30	-110.62	SW-34-15-5-W4	33170
PMA	95.29.86	C.F.B. Suffield	800	50.30	-110.62	SW-34-15-5-W4	33171
PMA	95.29.87	C.F.B. Suffield	800	50.30	-110.62	SW-34-15-5-W4	33172
PMA	95.29.88	C.F.B. Suffield	800	50.30	-110.62	SW-34-15-5-W4	33173
PMA	95.29.89	C.F.B. Suffield	800	50.30	-110.62	SW-34-15-5-W4	33174
PMA	95.29.9	C.F.B. Suffield	800	50.25	-110.63	NE-9-15-5-W4	33175
PMA	95.29.90	C.F.B. Suffield	800	50.30	-110.62	SW-34-15-5-W4	33176
PMA	95.29.91	C.F.B. Suffield	800	50.30	-110.62	SW-34-15-5-W4	33177
PMA	95.29.92	C.F.B. Suffield	800	50.30	-110.62	SW-34-15-5-W4	33178
PMA	95.29.93	C.F.B. Suffield	800	50.30	-110.62	SW-34-15-5-W4	33179
PMA	95.29.94	C.F.B. Suffield	800	50.38	-110.63	SE-33-16-5-W4	33180
PMA	95.29.95	C.F.B. Suffield	800	50.38	-110.63	SE-33-16-5-W4	33181
PMA	95.29.96	C.F.B. Suffield	800	50.38	-110.63	SE-33-16-5-W4	33182
PMA	95.29.97	C.F.B. Suffield	800	50.38	-110.63	SE-33-16-5-W4	33183
PMA	95.29.98	C.F.B. Suffield	800	50.38	-110.63	SE-33-16-5-W4	33184
PMA	95.29.99	C.F.B. Suffield	800	50.38	-110.63	SE-33-16-5-W4	33185
PMA	95.30.100	C.F.B. Suffield	800	50.32	-110.63	SE-4-16-5-W4	33186
PMA	95.30.101	C.F.B. Suffield	800	50.32	-110.63	SE-4-16-5-W4	33187
PMA	95.30.46	C.F.B. Suffield	800	50.68	-110.33	NE-10-20-3-W4	33188
PMA	95.30.47	C.F.B. Suffield	800	50.25	-110.77	NE-9-15-6-W4	33189

Prairie Shrew *(Sorex haydeni)*

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PMA	95.30.48	C.F.B. Suffield	800	50.30	-110.63	SE-33-15-5-W4	33190
PMA	95.30.49	C.F.B. Suffield	800	50.30	-110.63	SE-33-15-5-W4	33191
PMA	95.30.50	C.F.B. Suffield	800	50.30	-110.63	SE-33-15-5-W4	33192
PMA	95.30.51	C.F.B. Suffield	800	50.33	-110.68	NW-7-16-5-W4	33193
PMA	95.30.52	C.F.B. Suffield	800	50.38	-110.62	SW-34-16-5-W4	33194
PMA	95.30.53	C.F.B. Suffield	800	50.38	-110.60	SW-35-16-5-W4	33195
PMA	95.30.54	C.F.B. Suffield	800	50.38	-110.60	SW-35-16-5-W4	33196
PMA	95.30.56	C.F.B. Suffield	800	50.62	-110.35	SW-22-19-3-W4	33197
PMA	95.30.57	C.F.B. Suffield	800	50.58	-110.38	NE-5-19-3-W4	33198
PMA	95.30.58	C.F.B. Suffield	800	50.58	-110.38	NE-5-19-3-W4	33199
PMA	95.30.59	C.F.B. Suffield	800	50.58	-110.38	NE-5-19-3-W4	33200
PMA	95.30.60	C.F.B. Suffield	800	50.58	-110.38	NE-5-19-3-W4	33201
PMA	95.30.61	C.F.B. Suffield	800	50.32	-110.62	SW-3-16-5-W4	33202
PMA	95.30.62	C.F.B. Suffield	800	50.32	-110.62	SW-3-16-5-W4	33203
PMA	95.30.63	C.F.B. Suffield	800	50.32	-110.62	SW-3-16-5-W4	33204
PMA	95.30.64	C.F.B. Suffield	800	50.32	-110.62	SW-3-16-5-W4	33205
PMA	95.30.65	C.F.B. Suffield	800	50.30	-110.62	SW-34-15-5-W4	33206
PMA	95.30.66	C.F.B. Suffield	800	50.30	-110.62	SW-34-15-5-W4	33207
PMA	95.30.67	C.F.B. Suffield	800	50.30	-110.62	SW-34-15-5-W4	33208
PMA	95.30.68	C.F.B. Suffield	800	50.30	-110.62	SW-34-15-5-W4	33209
PMA	95.30.69	C.F.B. Suffield	800	50.25	-110.63	NE-9-15-5-W4	33210
PMA	95.30.70	C.F.B. Suffield	800	50.25	-110.63	NE-9-15-5-W4	33211
PMA	95.30.71	C.F.B. Suffield	800	50.38	-110.63	SE-33-16-5-W4	33212
PMA	95.30.72	C.F.B. Suffield	800	50.38	-110.63	SE-33-16-5-W4	33213
PMA	95.30.73	C.F.B. Suffield	800	50.38	-110.63	SE-33-16-5-W4	33214
PMA	95.30.74	C.F.B. Suffield	800	50.38	-110.63	SE-33-16-5-W4	33215
PMA	95.30.75	C.F.B. Suffield	800	50.38	-110.63	SE-33-16-5-W4	33216
PMA	95.30.76	C.F.B. Suffield	800	50.38	-110.63	SE-33-16-5-W4	33217
PMA	95.30.77	C.F.B. Suffield	800	50.38	-110.63	SE-33-16-5-W4	33218
PMA	95.30.78	C.F.B. Suffield	800	50.38	-110.63	SE-33-16-5-W4	33219
PMA	95.30.79	C.F.B. Suffield	800	50.38	-110.63	SE-33-16-5-W4	33220
PMA	95.30.80	C.F.B. Suffield	800	50.28	-110.62	SW-27-15-5-W4	33221
PMA	95.30.81	C.F.B. Suffield	800	50.32	-110.62	SW-3-16-5-W4	33222
PMA	95.30.82	C.F.B. Suffield	800	50.32	-110.62	SW-3-16-5-W4	33223
PMA	95.30.83	C.F.B. Suffield	800	50.32	-110.62	SW-3-16-5-W4	33224
PMA	95.30.84	C.F.B. Suffield	800	50.32	-110.62	SW-3-16-5-W4	33225

Prairie Shrew *(Sorex haydeni)*

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PMA	95.30.85	C.F.B. Suffield	800	50.30	-110.73	SW-35-15-6-W4	33226
PMA	95.30.86	C.F.B. Suffield	800	50.25	-110.63	NE-9-15-5-W4	33227
PMA	95.30.87	C.F.B. Suffield	800	50.25	-110.63	NE-9-15-5-W4	33228
PMA	95.30.88	C.F.B. Suffield	800	50.25	-110.63	NE-9-15-5-W4	33229
PMA	95.30.89	C.F.B. Suffield	800	50.42	-110.60	SW-11-17-5-W4	33230
PMA	95.30.90	C.F.B. Suffield	800	50.42	-110.60	SW-11-17-5-W4	33231
PMA	95.30.91	C.F.B. Suffield	800	50.42	-110.60	SW-11-17-5-W4	33232
PMA	95.30.92	C.F.B. Suffield	800	50.45	-110.45	NE-23-17-4-W4	33233
PMA	95.30.93	C.F.B. Suffield	800	50.45	-110.45	NE-23-17-4-W4	33234
PMA	95.30.94	C.F.B. Suffield	800	50.48	-110.40	NE-31-17-3-W4	33235
PMA	95.30.95	C.F.B. Suffield	800	50.48	-110.42	NW-31-17-3-W4	33236
PMA	95.30.96	C.F.B. Suffield	800	50.30	-110.73	SW-35-15-6-W4	33237
PMA	95.30.97	C.F.B. Suffield	800	50.30	-110.73	SW-35-15-6-W4	33238
PMA	95.30.98	C.F.B. Suffield	800	50.30	-110.73	SW-35-15-6-W4	33239
PMA	95.30.99	C.F.B. Suffield	800	50.28	-110.62	SW-27-15-5-W4	33240
PMA	95.8.158	C.F.B. Suffield	800	50.65	-110.33	SE-34-19-3-W4	33241
PMA	95.8.159	C.F.B. Suffield	800	50.65	-110.32	SW-35-19-3-W4	33242
PMA	95.8.160	C.F.B. Suffield	800	50.65	-110.30	SW-36-19-3-W4	33243
PMA	95.8.161	C.F.B. Suffield	800	50.60	-110.43	NW-12-19-4-W4	33244
PMA	95.8.162	C.F.B. Suffield	800	50.60	-110.43	NW-12-19-4-W4	33245
PMA	95.8.163	C.F.B. Suffield	800	50.35	-110.63	NE-16-16-5-W4	33246
PMA	Z70.80.9	Whitney Lake	5000	53.83	-110.55	SE-17-56-4-W4	49492
PMA	Z75.52.31	6 mi N of Paradise Valley	800	53.83	-110.55	SE-17-56-4-W4	33260
PMA	Z78.103.34	8 mi N and 10 mi E of Rumsey	800	53.12	-110.27	NW-5-48-2-W4	33261
SCHOWALTER AND DIGBY (1997)		~ 25km W of Acadia Valley	1200	51.61	-112.53	31-30-18-W4	50266
SCHOWALTER AND DIGBY (1997)		~ 20km S and 20km W of Consort	1200	51.80	-111.10	5-33-8-W4	50265
SCHOWALTER AND DIGBY (1997)		~ 20km N and 20km W of Hanna	1200	51.83	-112.19	15-33-16-W4	50263
SCHOWALTER AND DIGBY (1999)		near Wimborne	1200	51.92	-113.68	18-34-26-W4	50247
SCHOWALTER AND DIGBY (1999)		~ 5km S of Sibbald	1200	51.29	-110.20	10-27-2-W4	50245
SCHOWALTER AND DIGBY (1999)		near Cavendish	1200	50.74	-110.55	31-20-4-W4	50244
SCHOWALTER AND DIGBY (1999)		~10km S of Warner	1200	49.20	-112.19	11-3-17-W4	50242
SCHOWALTER AND DIGBY (1999)		near town of Milk River	1200	49.15	-112.22	28-2-17-W4	50241
SCHOWALTER AND DIGBY (1999)	UAMZ 9963	near Whisky Gap	1200	49.05	-113.04	20-1-23-W4	50243
SCHOWALTER (2000a)		Hwy 41 ~ 11.2 km SW of turn off to Schuler	1200	50.27	-110.25	20-15-2-W4	56233
SCHOWALTER (2000a)		~ 11 mi S Bindloss, 1/2 mi east of Stelter farmstead	600	50.70	-110.25	SW-20-20-2-W4	56224
SCHOWALTER (2000a)		~18 mi W of Three Hills	600	51.71	-113.71	NW-1-32-27-W4	56222

Prairie Shrew *(Sorex haydeni)*

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SCHOWALTER (2000a)		3 mi S of the Tolman Bridge	1200	51.80	-113.02	2-33-22-W4	56220
SCHOWALTER (2000b)		E. of Carmengay	300	50.14	-113.00	-6-14-22-W4	57262
SCHOWALTER (2000b)		Waterton River at bridge on Highway 810 north of Glenwood	100	49.43	-113.50	NE-36-5-27-W4	57260
SCHOWALTER (2000b)		E. of Stavely	100	50.16	-113.35	NE-9-14-25-W4	57255
SCHOWALTER (2000b)		Middle Coulee	100	49.34	-112.41	NE-31-4-18-W4	57247
SCHOWALTER (2000b)		Little Bow River	100	50.16	-113.30	NE-11-14-25-W4	57242
SCHOWALTER (2000b)		N. of Cowley	100	49.75	-114.14	NE-24-9-2-W5	57234
SCHOWALTER (2000b)		N. of Cluny	100	50.95	-112.87	NE-9-23-21-W4	57228
SMITH (1981)			1200	51.12	-111.85	11-25-14-W4	53864
SMITH (1981)			1200	51.09	-111.64	32-24-12-W4	53863
SMITH (1981)			6900	50.09	-111.44	13-11-W4	53862
SMITH (1981)			1200	49.37	-111.79	11-5-14-W4	53861
SMITH (1981)			1200	50.04	-110.54	31-12-4-W4	53860
SMITH (1981)			1200	49.27	-111.41	3-4-11-W4	53859
SMITH (1981)			1200	49.22	-111.50	24-3-12-W4	53858
SMITH (1992)			6900	51.05	-112.17	24-16-W4	54334
SMITH (1992)			6900	51.58	-112.61	30-19-W4	54321
SMITH (1992)			600	51.59	-112.52	NE-19-30-18-W4	54320
SMITH (1992)			600	51.51	-112.54	NE-25-29-19-W4	54319
SMITH (1992)			600	51.52	-112.07	SE-32-29-15-W4	54318
SMITH (1992)			600	51.25	-112.42	SW-26-26-18-W4	54317
UAMZ	M1020	Vermilion	5000	53.31	-110.93	SW-32-50-6-W4	49854
UAMZ	M1021	Vermilion	5000	53.31	-110.93	SW-32-50-6-W4	49854
UAMZ	M1022	Vermilion	5000	53.31	-110.93	SW-32-50-6-W4	49854
UAMZ	M1026	Vermilion	5000	53.31	-110.93	SW-32-50-6-W4	49855
UAMZ	M1036	Vermilion	5000	53.31	-110.93	SW-32-50-6-W4	49856
UAMZ	M1286	Brooks	5000	50.52	-111.97	NW-32-18-14-W4	49857
UAMZ	M1287	Brooks	5000	50.52	-111.97	NW-32-18-14-W4	49857
UAMZ	M1288	Gleichen	5000	50.82	-113.12	SW-18-22-22-W4	49858
UAMZ	M1292	Calgary	5000	51.00	-114.14	NW-15-24-1-W5	49859
UAMZ	M1294	Youngstown	5000	51.48	-111.28	NE-33-29-9-W4	49860
UAMZ	M1302	Acadia Valley	5000	51.11	-110.28	SW-27-25-2-W4	49863
UAMZ	M1303	Beaverlodge	5000	55.15	-119.81	NW-35-71-12-W6	49864
UAMZ	M1305	Brooks	5000	50.52	-111.97	NW-32-18-14-W4	49865
UAMZ	M1310	Orion	5000	49.41	-110.88	SW-7-6-6-W4	49866
UAMZ	M1317	Vermilion	5000	53.31	-110.93	SW-32-50-6-W4	49867

Prairie Shrew *(Sorex haydeni)*

Source	Specimen ID	Locality	Precision (m)	Latitude (center)	Longitude (center)	Approx. ATS	BSOD Observation ID
UAMZ	M1319	Vermilion	5000	53.31	-110.93	SW-32-50-6-W4	49867
UAMZ	M1326	Beaverhill Lake	5000	53.40	-112.59	NW-36-51-18-W4	49868
UAMZ	M1327	Warspite	5000	54.09	-112.62	NW-10-59-18-W4	56330
UAMZ	M301	Hilda	5000	50.44	-110.10	NE-35-17-1-W4	49842
UAMZ	M302	Youngstown	5000	51.48	-111.28	NE-33-29-9-W4	49843
UAMZ	M318	Aden	5000	49.00	-111.37	NE-8-1-10-W4	49844
UAMZ	M320	Edmonton	5000	53.48	-113.57	SE-32-52-24-W4	49845
UAMZ	M445	4.5 mi N of Onefour	800	49.17	-110.49	NE-3-3-4-W4	49869
UAMZ	M446	4.5 mi N of Onefour	800	49.17	-110.49	NE-3-3-4-W4	49869
UAMZ	M447	4.5 mi N of Onefour	800	49.17	-110.49	NE-3-3-4-W4	49869
UAMZ	M648	Stettler	5000	52.28	-112.78	SW-5-39-19-W4	49846
UAMZ	M649	Stettler	5000	52.28	-112.78	SW-5-39-19-W4	49846
UAMZ	M661	Camrose	5000	52.98	-112.90	SW-2-47-20-W4	49847
UAMZ	M671	Hardisty	5000	52.63	-111.38	SW-6-43-9-W4	49848
UAMZ	M6876	Edmonton	5000	53.48	-113.57	SE-32-52-24-W4	49870
UAMZ	M6902	Edmonton	5000	53.48	-113.57	SE-32-52-24-W4	49870
UAMZ	M6937	Driedmeat Lake	5000	52.87	-112.75	NW-7-45-19-W4	49871
UAMZ	M6938	Driedmeat Lake	5000	52.87	-112.75	NW-7-45-19-W4	49872
UAMZ	M697	Pigeon Lake	5000	52.97	-114.13	NW-35-46-1-W5	49849
UAMZ	M752	Edmonton	5000	53.48	-113.57	SE-32-52-24-W4	49850
UAMZ	M757	Edmonton	5000	53.48	-113.57	SE-32-52-24-W4	49851
UAMZ	M758	Edmonton	5000	53.48	-113.57	SE-32-52-24-W4	49851
UAMZ	M804	St. Paul	5000	53.95	-111.37	SE-8-58-9-W4	49852
UAMZ	M9376	Cowley	5000	49.57	-114.07	SE-21-7-1-W5	33247
UAMZ	M9538	Bashaw	5000	52.54	-113.04	SW-4-42-21-W4	33248
UAMZ	M9539	Bashaw	5000	52.54	-113.04	SW-4-42-21-W4	49162
UAMZ	M954	Vermilion	5000	53.31	-110.93	SW-32-50-6-W4	49853
UAMZ	M9540	Bashaw	5000	52.54	-113.04	SW-4-42-21-W4	49163
UAMZ	M9541	Bashaw	5000	52.54	-113.04	SW-4-42-21-W4	49164
UAMZ	M9542	Bashaw	5000	52.54	-113.04	SW-4-42-21-W4	49164
UAMZ	M9543	Bashaw	5000	52.54	-113.04	SW-4-42-21-W4	49164
UAMZ	M9544	Bashaw	5000	52.54	-113.04	SW-4-42-21-W4	49165
UAMZ	M9545	Bashaw	5000	52.54	-113.04	SW-4-42-21-W4	49166
UAMZ	M9546	Bashaw	5000	52.54	-113.04	SW-4-42-21-W4	49166
UAMZ	M9547	Bashaw	5000	52.54	-113.04	SW-4-42-21-W4	49167
UAMZ	M9548	Bashaw	5000	52.54	-113.04	SW-4-42-21-W4	49167

Prairie Shrew *(Sorex haydeni)*

Source	Specimen ID	Locality	Precision (m)	Latitude (center)	Longitude (center)	Approx. ATS	BSOD Observation ID
UAMZ	M9549	Bashaw	5000	52.54	-113.04	SW-4-42-21-W4	49167
UAMZ	M955	Vermilion	5000	53.31	-110.93	SW-32-50-6-W4	49853
UAMZ	M9550	Bashaw	5000	52.54	-113.04	SW-4-42-21-W4	49168
UAMZ	M9551	Bashaw	5000	52.54	-113.04	SW-4-42-21-W4	49168
UAMZ	M9552	Bashaw	5000	52.54	-113.04	SW-4-42-21-W4	49168
UAMZ	M9553	Bashaw	5000	52.54	-113.04	SW-4-42-21-W4	49169
UAMZ	M9554	Bashaw	5000	52.54	-113.04	SW-4-42-21-W4	49169
UAMZ	M9555	Bashaw	5000	52.54	-113.04	SW-4-42-21-W4	49169
UAMZ	M9556	Bashaw	5000	52.54	-113.04	SW-4-42-21-W4	49169
UAMZ	M9557	Bashaw	5000	52.54	-113.04	SW-4-42-21-W4	49172
UAMZ	M9558	Bashaw	5000	52.54	-113.04	SW-4-42-21-W4	49170
UAMZ	M9559	Bashaw	5000	52.54	-113.04	SW-4-42-21-W4	49170
UAMZ	M9560	Bashaw	5000	52.54	-113.04	SW-4-42-21-W4	49171
UAMZ	M9561	Bashaw	5000	52.54	-113.04	SW-4-42-21-W4	49172
UAMZ	M9562	Bashaw	5000	52.54	-113.04	SW-4-42-21-W4	49172
UAMZ	M9563	Bashaw	5000	52.54	-113.04	SW-4-42-21-W4	49172
UAMZ	M9564	Bow City	6900	50.53	-112.41	18-18-W4	33257
UAMZ	M9565	Bow City	6900	50.53	-112.41	18-18-W4	33257
UAMZ	M9566	Bow City	6900	50.53	-112.41	18-18-W4	33254
UAMZ	M9567	Bow City	6900	50.53	-112.41	18-18-W4	33253
UAMZ	M9568	Bow City	6900	50.53	-112.41	18-18-W4	33253
UAMZ	M9569	Bow City	6900	50.53	-112.41	18-18-W4	33254
UAMZ	M9570	Bow City	6900	50.53	-112.41	18-18-W4	33257
UAMZ	M9571	Bow City	6900	50.53	-112.41	18-18-W4	33258
UAMZ	M9572	Bow City	6900	50.53	-112.41	18-18-W4	33257
UAMZ	M9573	Bow City	6900	50.53	-112.41	18-18-W4	33258
UAMZ	M9574	Bow City	6900	50.53	-112.41	18-18-W4	33259
UAMZ	M9575	Bashaw	5000	52.54	-113.04	SW-4-42-21-W4	49173
UAMZ	M9576	Bashaw	5000	52.54	-113.04	SW-4-42-21-W4	49174

Wandering Shrew (*Sorex vagrans*)

Source	Specimen ID	Locality	Precision (m)	Latitude (center)	Longitude (center)	Approx. ATS	BSOD Observation ID
PMA	Z82.63.105	West Castle	800	49.19	-114.25	SE-7-3-2-W5	32144
PMA	Z82.63.107	West Castle	800	49.19	-114.25	SE-7-3-2-W5	32144
PMA	Z82.63.108	West Castle	800	49.19	-114.25	SE-7-3-2-W5	32144
PMA	Z82.63.35	West Castle	5000	49.37	-114.40	SW-7-5-3-W5	49493
PMA	Z82.63.44	West Castle	5000	49.37	-114.40	SW-7-5-3-W5	49494
PMA	Z82.63.67	West Castle	5000	49.27	-114.37	SE-5-4-3-W5	49495
PMA	Z82.63.88	West Castle	5000	49.37	-114.40	SW-7-5-3-W5	49496
UAMZ	M9414	Waterton Lakes National Park	100	49.02	-113.68	NE-9-1-28-W4	53720
WALLIS AND WERSHLER (1997)		Waterton Lakes National Park	100	49.04	-114.03	NE-14-1-1-W5	49448
WALLIS AND WERSHLER (1997)		Waterton Lakes National Park	100	49.06	-113.77	SW-25-1-29-W4	49444
WALLIS AND WERSHLER (1997)		Waterton Lakes National Park	100	49.02	-114.04	SW-11-1-1-W5	49439
WALLIS AND WERSHLER (1997)		Waterton Lakes National Park	100	49.02	-114.04	SW-11-1-1-W5	49438
WALLIS AND WERSHLER (1997)		Waterton Lakes National Park	100	49.02	-114.04	SW-11-1-1-W5	49436
WALLIS AND WERSHLER (1997)	M9468	Waterton Lakes National Park	100	49.11	-113.84	SE-8-2-29-W4	49447
WALLIS AND WERSHLER (1997)	M9471	Waterton Lakes National Park	100	49.11	-113.84	SE-8-2-29-W4	49447
WALLIS AND WERSHLER (1997)	M9472	Waterton Lakes National Park	100	49.12	-113.87	SW-18-2-29-W4	49441
WALLIS AND WERSHLER (1997)	M9474	Waterton Lakes National Park	100	49.01	-114.03	NE-2-1-1-W5	49437
WALLIS AND WERSHLER (1997)	M9611	Waterton Lakes National Park	100	49.09	-114.13	NW-31-1-1-W5	49449
WALLIS AND WERSHLER (1997)	M9612	Waterton Lakes National Park	100	49.11	-113.83	SW-9-2-29-W4	49442
WALLIS AND WERSHLER (1997)	M9613	Waterton Lakes National Park	100	49.09	-114.13	NW-31-1-1-W5	49449
WALLIS AND WERSHLER (1997)	M9615	Waterton Lakes National Park	100	49.06	-113.77	SW-25-1-29-W4	49445
WALLIS AND WERSHLER (1997)	M9948	Waterton Lakes National Park	100	49.02	-114.04	SW-11-1-1-W5	49446

Long-eared Bat (*Myotis evotis*)

Source	Specimen ID	Locality	Precision (m)	Latitude (center)	Longitude (center)	Approx. ATS	BSOD Observation ID
CMN	3329	Jasper National Park	5000	52.83	-118.16	SE-16-45-1-W6	49745
CMN	4651	Waterton Lakes National Park	5000	49.05	-114.02	SW-4-2-30-W4	49746
CMN	4736	Waterton Lakes National Park	5000	49.05	-114.02	SW-4-2-30-W4	49743
CMN	5133	Waterton Lakes National Park, near Belly River	5000	49.00	-113.75	SW-21-1-28-W4	49744
CMN	5884	Red Deer River, near Rumsey	5000	51.85	-112.85	NE-24-33-21-W4	49742
CMN	5891	Red Deer River, near Rumsey	5000	51.85	-112.85	NE-24-33-21-W4	49741
CMN	5894	Red Deer River, near Rumsey	5000	51.85	-112.85	NE-24-33-21-W4	49739
CMN	5895	Red Deer River, near Rumsey	5000	51.85	-112.85	NE-24-33-21-W4	49740
HOLLOWAY (1998)		South Saskatchewan River, upstream from Empress	5000	50.70	-110.13	NE-18-20-1-W4	54262
PMA	83.23.1	Fort McLeod	5000	49.72	-113.42	SE-11-9-26-W4	52829
PMA	84.31.12	7 mi W of Rumsey (Tolman's Farm)	800	51.83	-113.00	NW-13-33-22-W4	52818
PMA	84.31.13	7 mi W of Rumsey (Tolman's Farm)	800	51.83	-113.00	NW-13-33-22-W4	52818
PMA	Z65.32.1	Trochu	5000	51.85	-113.23	NW-20-33-23-W4	52820
PMA	Z65.32.2	Trochu	5000	51.85	-113.23	NW-20-33-23-W4	52820
PMA	Z65.32.3	Trochu	5000	51.85	-113.23	NW-20-33-23-W4	52820
PMA	Z68.2.20	Trochu	5000	51.82	-113.00	NW-12-33-22-W4	52819
PMA	Z75.39.1	Rumsey	5000	51.83	-113.00	NW-13-33-22-W4	52827
PMA	Z77.111.2	7 mi W of Rumsey (Tolman's Farm)	800	51.83	-113.02	NE-14-33-22-W4	52825
PMA	Z77.111.3	7 mi W of Rumsey (Tolman's Farm)	800	51.83	-113.02	NE-14-33-22-W4	52825
PMA	Z77.60.2	Deer Creek Ranch (Milk River Valley)	800	49.08	-111.50	NE-35-1-12-W4	52826
PMA	Z79.102.1	Dry Island Buffalo Jump Provincial Park	800	51.92	-113.00	SW-13-34-22-W4	52824
PMA	Z79.125.110	Dinosaur Provincial Park	5000	50.75	-111.50	SW-5-21-11-W4	52822
PMA	Z79.125.111	Dinosaur Provincial Park	5000	50.75	-111.50	SW-5-21-11-W4	52822
PMA	Z79.125.93	Deer Creek Ranch (Milk River Valley)	800	49.07	-111.50	NE-26-1-12-W4	52823
PMA	Z79.125.94	Deer Creek Ranch (Milk River Valley)	800	49.07	-111.50	NE-26-1-12-W4	52823
PMA	Z79.125.95	Deer Creek Ranch (Milk River Valley)	800	49.07	-111.50	NE-26-1-12-W4	52823
PMA	Z79.125.96	Dinosaur Provincial Park	5000	50.75	-111.50	SW-5-21-11-W4	52822
PMA	Z79.125.97	Dinosaur Provincial Park	5000	50.75	-111.50	SW-5-21-11-W4	52822
PMA	Z79.132.48	Hesketh	5000	51.47	-112.97	SE-12-29-22-W4	52821
PMA	Z79.132.49	Hesketh	5000	51.47	-112.97	SE-12-29-22-W4	52821
PMA	Z82.4.3	Dry Island Buffalo Jump Provincial Park	800	51.75	-113.02	NE-14-32-22-W4	52830
PMA	Z82.4.4	Dry Island Buffalo Jump Provincial Park	800	51.75	-113.02	NE-14-32-22-W4	52830
PMA	Z82.4.5	Dry Island Buffalo Jump Provincial Park	800	51.75	-113.02	NE-14-32-22-W4	52830
REYNOLDS ET AL (1999)		East Boundary by river	100	50.61	-110.29	NE-13-19-3-W4	53239
REYNOLDS ET AL (1999)		East Coulee, Murphy's Horn	100	50.44	-110.42	SE-24-17-4-W4	53231
REYNOLDS ET AL (1999)		Aspen grove, South Butler Trail	100	50.60	-110.31	SE-14-19-3-W4	53230

Long-eared Bat (*Myotis evotis*)

Source	Specimen ID	Locality	Precision (m)	Latitude (center)	Longitude (center)	Approx. ATS	BSOD Observation ID
REYNOLDS ET AL (1999)		South Hantavirus Coulee	100	50.52	-110.42	SW-18-18-3-W4	53229
REYNOLDS ET AL (1999)		South Whitco Springs	100	50.58	-110.42	NW-6-19-3-W4	53228
REYNOLDS ET AL (1999)		Sherwood Forest	100	50.47	-110.56	NE-25-17-5-W4	53227
REYNOLDS ET AL (1999)		Ravine off Butler's Trail	100	50.60	-110.37	SW-16-19-3-W4	53226
REYNOLDS ET AL (1999)		East Boundary by river	100	50.61	-110.28	NE-13-19-3-W4	53225
REYNOLDS ET AL (1999)		Whitco Springs	100	50.59	-110.41	NE-6-19-3-W4	53224
ROM	22912	Waterton Lakes, Stoney Cabin	5000	49.05	-113.90	SE-23-1-30-W4	49822
ROM	22913	Waterton Lakes, Stoney Cabin	5000	49.05	-113.90	SE-23-1-30-W4	49823
ROM	25894	7 mi W of Denhart	800	50.67	-111.38	SW-6-20-10-W4	49821
ROM	46036	Deer Creek Ranch, Milk River	800	49.12	-111.38	SW-14-2-11-W4	49820
SAUNDERS (1989)		area in and around Writing on Stone Provincial Park	5000	49.01	-111.65	SW-29-1-12-W4	54259
UAMZ	M1187	10 mi W of Turner Valley	800	50.67	-114.54	SW-8-20-4-W5	49876
UAMZ	M1206	Gorge Creek	6900	50.62	-114.62	19-5-W4	49877
UAMZ	M91	Waterton Lakes National Park	5000	49.05	-114.02	SW-4-2-30-W4	49875
UAMZ	M9259	Dinosaur Provincial Park	5000	50.71	-111.55	NW-4-21-11-W4	49878
USMNS	33	Waterton Lakes National Park	5000	49.05	-114.02	SW-4-2-30-W4	49811
WALLIS AND WERSHLER (1997)		Waterton Lakes National Park	100	49.09	-113.89	SW-1-2-30-W4	49424

Long-legged Bat (*Myotis volans*)

Source	Specimen ID	Locality	Precision (m)	Latitude (center)	Longitude (center)	Approx. ATS	BSOD Observation ID
CMN	51535	Spirit River, 4km S of the town of Spirit River.	800	55.73	-118.83	NE-3-78-6-W6	49747
NMNH	174133	Henry House	6900	52.97	-118.07	46-1-W6	49454
PMA	Z75.59.2	Hinton	5000	53.42	-117.55	SE-24-51-25-W5	52841
PMA	Z76.58.1	Along the Milk River	800	49.08	-111.59	NE-31-1-12-W4	52835
PMA	Z77.145.1	Coalhurst (Northwest of Lethbridge)	5000	49.75	-112.93	NW-21-9-22-W4	52840
PMA	Z77.148.1	Milk River	800	49.08	-111.58	NW-32-1-12-W4	52839
PMA	Z77.59.1	Cadomin	5000	53.00	-117.38	NW-26-46-24-W5	52836
PMA	Z77.60.4	Deer Creek Ranch (Milk River Valley)	800	49.08	-111.50	NE-35-1-12-W4	52838
PMA	Z77.60.5	Deer Creek Ranch (Milk River Valley)	800	49.08	-111.50	NE-35-1-12-W4	52838
PMA	Z77.60.6	Deer Creek Ranch (Milk River Valley)	800	49.08	-111.50	NE-35-1-12-W4	52838
PMA	Z77.60.7	Deer Creek Ranch (Milk River Valley)	800	49.08	-111.50	NE-35-1-12-W4	52838
PMA	Z77.62.2	Cadomin	5000	53.00	-117.38	NW-26-46-24-W5	52837
PMA	Z77.62.3	Cadomin	5000	53.00	-117.38	NW-26-46-24-W5	52837
PMA	Z77.62.4	Cadomin	5000	53.00	-117.39	NE-27-46-24-W5	52842
PMA	Z78.83.10	Cadomin Caves	800	53.00	-117.33	NW-30-46-23-W5	52834
PMA	Z78.83.11	Cadomin Caves	800	53.00	-117.33	NW-30-46-23-W5	52834
PMA	Z78.83.13	Cadomin Caves	800	53.00	-117.33	NW-30-46-23-W5	52834
PMA	Z78.83.14	Cadomin Caves	800	53.00	-117.33	NW-30-46-23-W5	52834
PMA	Z78.83.15	Cadomin Caves	800	53.00	-117.33	NW-30-46-23-W5	52834
PMA	Z78.83.16	Cadomin Caves	800	53.00	-117.33	NW-30-46-23-W5	52834
PMA	Z78.83.17	Cadomin Caves	800	53.00	-117.33	NW-30-46-23-W5	52834
PMA	Z78.83.18	Cadomin Caves	800	53.00	-117.33	NW-30-46-23-W5	52834
PMA	Z78.83.19	Cadomin Caves	800	53.00	-117.33	NW-30-46-23-W5	52834
PMA	Z78.83.20	Cadomin Caves	800	53.00	-117.33	NW-30-46-23-W5	52834
PMA	Z78.83.21	Cadomin Caves	800	53.00	-117.33	NW-30-46-23-W5	52834
PMA	Z78.83.3	Cadomin Caves	800	53.00	-117.33	NW-30-46-23-W5	52834
PMA	Z78.83.4	Cadomin Caves	800	53.00	-117.33	NW-30-46-23-W5	52834
PMA	Z78.83.7	Cadomin Caves	800	53.00	-117.33	NW-30-46-23-W5	52834
PMA	Z78.83.8	Cadomin Caves	800	53.00	-117.33	NW-30-46-23-W5	52834
PMA	Z78.98.14	Chungo Cave (Wapiabi Cave); 2 mi N and 12 mi W of Nordegg	800	52.50	-116.42	SW-5-41-17-W5	52833
PMA	Z78.98.15	Chungo Cave (Wapiabi Cave); 2 mi N and 12 mi W of Nordegg	800	52.50	-116.42	SW-5-41-17-W5	52833
PMA	Z78.98.16	Chungo Cave (Wapiabi Cave); 2 mi N and 12 mi W of Nordegg	800	52.50	-116.42	SW-5-41-17-W5	52833
PMA	Z78.98.17	Chungo Cave (Wapiabi Cave); 2 mi N and 12 mi W of Nordegg	800	52.50	-116.42	SW-5-41-17-W5	52833
PMA	Z78.98.18	Chungo Cave (Wapiabi Cave); 2 mi N and 12 mi W of Nordegg	800	52.50	-116.42	SW-5-41-17-W5	52833
PMA	Z78.98.19	Chungo Cave (Wapiabi Cave); 2 mi N and 12 mi W of Nordegg	800	52.50	-116.42	SW-5-41-17-W5	52833
PMA	Z78.98.20	Chungo Cave (Wapiabi Cave); 2 mi N and 12 mi W of Nordegg	800	52.50	-116.42	SW-5-41-17-W5	52833

Long-legged Bat (*Myotis volans*)

Source	Specimen ID	Locality	Precision (m)	Latitude (center)	Longitude (center)	Approx. ATS	BSOD Observation ID
PMA	Z78.98.21	Chungo Cave (Wapiabi Cave); 2 mi N and 12 mi W of Nordegg	800	52.50	-116.42	SW-5-41-17-W5	52833
PMA	Z78.98.22	Chungo Cave (Wapiabi Cave); 2 mi N and 12 mi W of Nordegg	800	52.50	-116.42	SW-5-41-17-W5	52833
PMA	Z78.98.23	Chungo Cave (Wapiabi Cave); 2 mi N and 12 mi W of Nordegg	800	52.50	-116.42	SW-5-41-17-W5	52833
PMA	Z78.98.24	Chungo Cave (Wapiabi Cave); 2 mi N and 12 mi W of Nordegg	800	52.50	-116.42	SW-5-41-17-W5	52833
PMA	Z78.98.25	Chungo Cave (Wapiabi Cave); 2 mi N and 12 mi W of Nordegg	800	52.50	-116.42	SW-5-41-17-W5	52833
PMA	Z78.98.26	Chungo Cave (Wapiabi Cave); 2 mi N and 12 mi W of Nordegg	800	52.50	-116.42	SW-5-41-17-W5	52833
PMA	Z78.98.27	Chungo Cave (Wapiabi Cave); 2 mi N and 12 mi W of Nordegg	800	52.50	-116.42	SW-5-41-17-W5	52833
PMA	Z78.98.28	Chungo Cave (Wapiabi Cave); 2 mi N and 12 mi W of Nordegg	800	52.50	-116.42	SW-5-41-17-W5	52833
PMA	Z78.98.29	Chungo Cave (Wapiabi Cave); 2 mi N and 12 mi W of Nordegg	800	52.50	-116.42	SW-5-41-17-W5	52833
PMA	Z78.98.30	Chungo Cave (Wapiabi Cave); 2 mi N and 12 mi W of Nordegg	800	52.50	-116.42	SW-5-41-17-W5	52833
PMA	Z79.110.3	Cadomin Cave	800	53.00	-117.33	NW-30-46-23-W5	52831
PMA	Z79.110.4	Cadomin Cave	800	53.00	-117.33	NW-30-46-23-W5	52831
PMA	Z79.125.91	Deer Creek Ranch (Milk River Valley)	800	49.07	-111.50	NE-26-1-12-W4	52832
PMA	Z79.125.92	Deer Creek Ranch (Milk River Valley)	800	49.07	-111.50	NE-26-1-12-W4	52832
REYNOLDS ET AL (1999)		Whitco Springs	100	50.59	-110.41	NE-6-19-3-W4	53234
SAUNDERS (1989)		Area in and around Writing on Stone Provincial Park	5000	49.01	-111.65	SW-29-1-12-W4	54257
UAMZ	M8037	Cadomin Cave	800	53.02	-117.35	NE-36-46-24-W5	49879
UAMZ	M8038	Cadomin Cave	800	53.02	-117.35	NE-36-46-24-W5	49879
UAMZ	M8040	Cadomin Cave	800	53.02	-117.35	NE-36-46-24-W5	49879
UAMZ	M8041	Cadomin Cave	800	53.02	-117.35	NE-36-46-24-W5	49879
UAMZ	M8045	Cadomin Cave	800	53.02	-117.35	NE-36-46-24-W5	49879
UAMZ	M8046	Cadomin Cave	800	53.02	-117.35	NE-36-46-24-W5	49879

Western-small Footed Bat (*Myotis ciliolabrum*)

Source	Specimen ID	Locality	Precision (m)	Latitude (center)	Longitude (center)	Approx. ATS	BSOD Observation ID
CMN	3177	Little Sandhill Creek, at the mouth of Deadlodge Canyon	800	50.76	-111.52	SE-7-21-11-W4	49749
CMN	3181	Little Sandhill Creek, at the mouth of Deadlodge Canyon	800	50.76	-111.52	SE-7-21-11-W4	49750
CMN	5888	Red Deer River, near Rumsey	800	51.85	-112.85	NE-24-33-21-W4	49748
CMN	5892	Red Deer River, near Rumsey	800	51.85	-112.85	NE-24-33-21-W4	49751
HOLLOWAY (1998)		South Saskatchewan River, upstream from Empress	5000	50.70	-110.13	NE-18-20-1-W4	54261
PMA	84.31.10	Steveville	5000	50.83	-111.62	NW-33-21-12-W4	52843
PMA	Z68.2.21	Trochu	5000	51.82	-113.02	NE-11-33-22-W4	52850
PMA	Z75.6.1	Lethbridge	5000	49.70	-112.83	SE-6-9-21-W4	52844
PMA	Z77.111.1	7 mi W of Rumsey (Tolman's Farm)	800	51.83	-113.02	NE-14-33-22-W4	52846
PMA	Z77.60.1	Deer Creek Ranch (Milk River Valley)	800	49.08	-111.50	NE-35-1-12-W4	52845
PMA	Z78.114.5	Coalhurst (Northwest of Lethbridge)	5000	49.75	-112.93	NW-21-9-22-W4	52848
PMA	Z78.93.5	Drumheller	5000	51.47	-112.70	SW-12-29-20-W4	52847
PMA	Z79.125.65	Steveville	5000	50.83	-111.67	NE-36-21-13-W4	52851
PMA	Z79.125.66	Steveville	5000	50.83	-111.67	NE-36-21-13-W4	52851
PMA	Z79.125.67	Steveville	5000	50.83	-111.67	NE-36-21-13-W4	52851
PMA	Z79.125.68	Dinosaur Provincial Park	5000	50.75	-111.50	SW-5-21-11-W4	52854
PMA	Z79.125.69	Dinosaur Provincial Park	5000	50.75	-111.50	SW-5-21-11-W4	52854
PMA	Z79.125.70	Dinosaur Provincial Park	5000	50.75	-111.50	SW-5-21-11-W4	52854
PMA	Z79.125.71	Dinosaur Provincial Park	5000	50.75	-111.50	SW-5-21-11-W4	52854
PMA	Z79.125.72	Dinosaur Provincial Park	5000	50.75	-111.50	SW-5-21-11-W4	52854
PMA	Z79.125.73	Dinosaur Provincial Park	5000	50.75	-111.50	SW-5-21-11-W4	52854
PMA	Z79.125.74	Dinosaur Provincial Park	5000	50.75	-111.50	SW-5-21-11-W4	52854
PMA	Z79.125.75	Dinosaur Provincial Park	5000	50.75	-111.50	SW-5-21-11-W4	52854
PMA	Z79.125.76	Dinosaur Provincial Park	5000	50.75	-111.50	SW-5-21-11-W4	52854
PMA	Z79.125.77	Dinosaur Provincial Park	5000	50.75	-111.50	SW-5-21-11-W4	52854
PMA	Z79.125.78	Dinosaur Provincial Park	5000	50.75	-111.50	SW-5-21-11-W4	52854
PMA	Z79.125.79	Dinosaur Provincial Park	5000	50.75	-111.50	SW-5-21-11-W4	52854
PMA	Z79.125.80	Dinosaur Provincial Park	5000	50.75	-111.50	SW-5-21-11-W4	52854
PMA	Z79.125.81	Dinosaur Provincial Park	5000	50.75	-111.50	SW-5-21-11-W4	52854
PMA	Z79.125.82	Dinosaur Provincial Park	5000	50.75	-111.50	SW-5-21-11-W4	52854
PMA	Z79.125.83	Dinosaur Provincial Park	5000	50.75	-111.50	SW-5-21-11-W4	52854
PMA	Z79.125.85	Dinosaur Provincial Park	5000	50.75	-111.50	SW-5-21-11-W4	52854
PMA	Z79.125.86	Dinosaur Provincial Park	5000	50.75	-111.50	SW-5-21-11-W4	52854
PMA	Z79.125.87	Dinosaur Provincial Park	5000	50.75	-111.50	SW-5-21-11-W4	52854
PMA	Z79.125.88	Dinosaur Provincial Park	5000	50.75	-111.50	SW-5-21-11-W4	52854
PMA	Z79.125.89	Dinosaur Provincial Park	5000	50.75	-111.50	SW-5-21-11-W4	52854

Western-small Footed Bat (*Myotis ciliolabrum*)

Source	Specimen ID	Locality	Precision (m)	Latitude (center)	Longitude (center)	Approx. ATS	BSOD Observation ID
PMA	Z79.125.90	Deer Creek Ranch (Milk River Valley)	800	49.07	-111.50	NE-26-1-12-W4	52852
PMA	Z79.132.3	Postill Farm, 10 mi E of Trochu	800	51.80	-113.00	SW-1-33-22-W4	52853
PMA	Z82.4.1	Dinosaur Provincial Park	5000	50.78	-111.50	NW-17-21-11-W4	52849
REYNOLDS ET AL (1999)		Bat Springs	100	50.47	-110.49	NE-28-17-4-W4	53238
REYNOLDS ET AL (1999)		Double Wide Fireguard	100	50.60	-110.46	SW-14-19-4-W4	53237
REYNOLDS ET AL (1999)		Whitco Springs	100	50.58	-110.41	NE-6-19-3-W4	53236
REYNOLDS ET AL (1999)		East boundary trail	100	50.62	-110.29	SE-24-19-3-W4	53235
REYNOLDS ET AL (1999)		Bull Pen at river (South Block)	100	50.25	-110.62	SW-15-15-5-W4	53223
REYNOLDS ET AL (1999)		Sherwood Forest	100	50.47	-110.56	NE-25-17-5-W4	53222
REYNOLDS ET AL (1999)		Ravine off Butler's Trail	100	50.60	-110.37	SW-16-19-3-W4	53221
REYNOLDS ET AL (1999)		Bat Springs	100	50.47	-110.49	NE-28-17-4-W4	53220
REYNOLDS ET AL (1999)		South Saskatchewan River, 4 km east of Sherwood Forest	100	50.46	-110.50	SW-28-17-4-W4	53219
REYNOLDS ET AL (1999)		South Hantavirus Coulee	100	50.52	-110.42	SW-18-18-3-W4	53218
REYNOLDS ET AL (1999)		Whitco Springs	100	50.58	-110.42	NW-6-19-3-W4	53217
REYNOLDS ET AL (1999)		East Sherwood Forest	100	50.46	-110.56	NE-25-17-5-W4	53215
REYNOLDS ET AL (1999)		East Boundary by river	100	50.61	-110.28	NE-13-19-3-W4	53214
SAUNDERS (1989)		area in and around Writing on Stone Provincial Park	5000	49.01	-111.65	SW-29-1-12-W4	54258
UAMZ	M4226	Milk River Valley, 1 mi N of United States border	800	49.01	-110.58	NW-2-1-5-W4	49880
UAMZ	M4227	Milk River Valley, 1 mi N of United States border	800	49.01	-110.58	NW-2-1-5-W4	49880
UAMZ	M9257	Dinosaur Provincial Park	5000	50.71	-111.55	NW-4-21-11-W4	49881

Hoary Bat (*Lasiurus cinereus*)

Source	Specimen ID	Locality	Precision (m)	Latitude (center)	Longitude (center)	Approx. ATS	BSOD Observation ID
HOLLOWAY (1998)		South Saskatchewan River, upstream from Empress	5000	50.70	-110.13	NE-18-20-1-W4	54263
PMA	84.30.4	Lethbridge	5000	49.70	-112.82	SW-5-9-21-W4	49499
PMA	84.30.6	Coaldale	5000	49.72	-112.62	SW-11-9-20-W4	49500
PMA	86.2.1	Lethbridge	5000	49.70	-112.82	SW-5-9-21-W4	49502
PMA	86.2.2	Calgary	5000	51.05	-114.08	NW-16-24-1-W5	49501
PMA	86.2.3	Redwater	5000	53.95	-113.10	SE-30-57-21-W4	49498
PMA	90.38.1	Edmonton	5000	53.53	-113.53	SW-31-52-24-W4	49497
PMA	94.18.1	Edmonton	5000	53.53	-113.53	SW-31-52-24-W4	49525
PMA	Z74.78.1	near Jenner, Red Deer River valley	800	50.83	-111.17	NE-34-21-9-W4	49522
PMA	Z75.7.1	Glendon	5000	54.25	-111.15	NW-4-61-8-W4	49504
PMA	Z75.86.1	Sherwood Park	5000	53.52	-113.23	SE-30-52-22-W4	49523
PMA	Z77.45.1	Vilna	5000	54.03	-111.83	NW-23-58-13-W4	49505
PMA	Z78.114.2	Drumheller	5000	51.47	-112.70	SW-12-29-20-W4	49512
PMA	Z78.114.3	Edmonton	5000	53.55	-113.47	NW-3-53-24-W4	49513
PMA	Z78.114.4	Olds	5000	51.78	-114.10	SE-32-32-1-W5	49514
PMA	Z78.114.7	Coaldale	5000	49.72	-112.62	SW-11-9-20-W4	49515
PMA	Z78.123.3	Hilda	5000	50.47	-110.05	NW-26-17-1-W4	49516
PMA	Z78.123.4	Lethbridge	5000	49.70	-110.83	SW-1-9-7-W4	49517
PMA	Z78.123.5	Lethbridge	5000	49.70	-110.83	SW-1-9-7-W4	49518
PMA	Z78.123.6	Lethbridge	5000	49.70	-110.83	SW-1-9-7-W4	49519
PMA	Z78.123.9	Olds	5000	51.78	-114.10	SE-32-32-1-W5	49520
PMA	Z78.93.13	Lethbridge	5000	49.70	-110.83	SW-1-9-7-W4	49506
PMA	Z79.132.2	Postill Farm, 10 mi E of Trochu on W bank of Red Deer River	800	51.80	-113.00	SW-1-33-22-W4	49503
PMA	Z79.93.14	Lethbridge	5000	49.70	-110.83	SW-1-9-7-W4	49507
PMA	Z79.93.17	Picture Butte	5000	49.88	-112.78	NE-3-11-21-W4	49508
PMA	Z79.93.18	Olds	5000	51.78	-114.10	SE-32-32-1-W5	49509
PMA	Z79.93.19	Edmonton	5000	53.53	-113.53	SW-31-52-24-W4	49510
PMA	Z79.93.20	Edmonton	5000	53.53	-113.53	SW-31-52-24-W4	49511
REYNOLDS ET AL (1999)		Hantavirus coulee	100	50.53	-110.42	SE-24-18-4-W4	53241
REYNOLDS ET AL (1999)		Whitco Springs	100	50.59	-110.41	NE-6-19-3-W4	53240
REYNOLDS ET AL (1999)		East Sherwood Forest	100	50.46	-110.56	NE-25-17-5-W4	53233
REYNOLDS ET AL (1999)		South Hantavirus Coulee	100	50.52	-110.42	SW-18-18-3-W4	53232
ROM	2404140081	Calgary, Sheganappi Point	5000	51.05	-114.08	NW-16-24-1-W5	49825
SAUNDERS (1989)		area in and around Writing on Stone Provincial Park	5000	49.01	-111.65	SW-29-1-12-W4	54260
SCHOWALTER AND DIGBY (1999)		near Cavendish	1200	50.74	-110.55	31-20-4-W4	50248
UAMZ	M1475	Lindbergh	5000	53.84	-110.75	NW-34-56-5-W4	49883

Hoary Bat (*Lasiurus cinereus*)

Source	Specimen ID	Locality	Precision (m)	Latitude (center)	Longitude (center)	Approx. ATS	BSOD Observation ID
UAMZ	M4606	Gorge Creek	6900	50.62	-114.62	19-5-W5	49884
UAMZ	M5674	Caroline	5000	52.05	-114.81	NW-13-36-6-W5	49885
UAMZ	M767	Big Stone	5000	51.16	-111.26	SW-10-26-9-W4	49882
UAMZ	M9260	Meanook Biological Research Station	800	54.61	-113.36	NW-12-65-23-W4	49886
USMNS	427	Waterton Lakes National Park	5000	49.05	-114.02	SW-4-2-30-W4	49812
WALLIS AND WERSHLER (1997)		Waterton Lakes National Park	100	49.14	-113.92	NE-22-2-30-W4	49423

Franklin's Ground Squirrel (*Spermophilus franklinii*)

Source	Specimen ID	Locality	Precision (m)	Latitude (center)	Longitude (center)	Approx. ATS	BSOD Observation ID
CMN	26821	Battle River, S of Galahad	6900	52.45	-111.95	40-14-W4	49769
CMN	26822	Beaver River, near Cold Lake	5000	54.32	-110.32	NW-16-62-2-W4	49768
CMN	28839	Marwayne	1200	53.52	-110.34	26-52-3-W4	49760
CMN	3149	Red Deer River, near Red Deer	5000	52.23	-113.88	SE-20-38-27-W4	49771
CMN	458	Edmonton	5000	53.55	-113.47	NW-3-53-24-W4	49762
CMN	459	Edmonton	5000	53.55	-113.47	NW-3-53-24-W4	49766
CMN	460	Edmonton	5000	53.55	-113.47	NW-3-53-24-W4	49765
CMN	6630	Lac la Nonne	5000	53.92	-114.30	NE-12-57-3-W5	49764
CMN	6631	Lac la Nonne	5000	53.92	-114.30	NE-12-57-3-W5	49761
CMN	6648	Lac la Nonne	5000	53.92	-114.30	NE-12-57-3-W5	49763
CMN	6652	Belvedere	1200	54.00	-114.36	10-58-3-W5	49770
CMN	6692	Lac la Nonne	5000	53.92	-114.30	NE-12-57-3-W5	49767
CMN	6967	Red Deer	5000	52.22	-113.88	SW-16-38-27-W4	49759
NMNH	116273	25 mi N of Edmonton, near Sturgeon River	6900	53.85	-113.35	56-23-W4	49456
NMNH	129710	25 mi N of Edmonton, near Sturgeon River	6900	53.85	-113.35	56-23-W4	49457
NMNH	68747	South Edmonton	5000	53.46	-113.57	SE-20-52-24-W4	49455
PMA	83.17.36	Chain Lakes	800	54.96	-113.50	NE-7-69-23-W4	49551
PMA	83.17.7	Chain Lakes	800	54.96	-113.48	NW-8-69-23-W4	49552
PMA	84.13.34	1 mi N, 9 mi W of Athabasca	800	54.72	-113.50	NW-13-66-24-W4	49546
PMA	89.31.1	near Mayerthorpe	800	53.97	-115.15	SE-32-57-8-W5	49545
PMA	Z65.10.10	Beaverhill Lake area	800	53.37	-112.42	NE-33-50-17-W4	49560
PMA	Z65.20.6	Beaverhill Lake area	800	53.37	-112.42	NE-33-50-17-W4	49559
PMA	Z65.3.11	Beaverhill Lake area	800	53.37	-112.42	NE-33-50-17-W4	49561
PMA	Z66.41.29	Beaverhill Lake area	800	53.37	-112.42	NE-33-50-17-W4	49558
PMA	Z66.41.30	Beaverhill Lake area	800	53.37	-112.42	NE-33-50-17-W4	49557
PMA	Z66.44.11	Beaverhill Lake area	800	53.37	-112.42	NE-33-50-17-W4	49556
PMA	Z67.15.8	Beaverhill Lake area	800	53.37	-112.42	NE-33-50-17-W4	49555
PMA	Z69.36.7	Beaverhill Lake area	800	53.35	-112.67	NE-26-50-19-W4	49554
PMA	Z78.61.1	Morinville	800	53.80	-113.70	NE-31-55-25-W4	49549
PMA	Z78.61.2	Morinville	800	53.80	-113.70	NE-31-55-25-W4	49548
PMA	Z78.9.13	Meanook	800	54.58	-113.25	NW-34-64-22-W4	49550
PMA	Z81.70.1	Rochon Sands Provincial Park	800	52.45	-112.88	SW-19-40-20-W4	49547
PMA	Z82.31.12	Raft Lake	800	53.62	-110.73	SW-31-53-5-W4	49553
REDP	rm02611	Pincher Creek	6100	49.48	-113.95	6-30-W4	49486
ROM	1211020009	Edmonton	5000	53.57	-113.42	NW-12-53-24-W4	49835
ROM	1211020012	Edmonton	5000	53.57	-113.42	NW-12-53-24-W4	49832

Franklin's Ground Squirrel (*Spermophilus franklinii*)

Source	Specimen ID	Locality	Precision (m)	Latitude (center)	Longitude (center)	Approx. ATS	BSOD Observation ID
ROM	17152	Camrose	5000	53.02	-112.83	NW-34-46-20-W4	49828
ROM	17154	Camrose	5000	53.02	-112.83	NW-34-46-20-W4	49826
ROM	2210050002	Driedmeat Lake	5000	53.87	-112.75	SW-27-56-19-W4	49833
ROM	2501160031	Driedmeat Lake	5000	52.87	-112.75	NW-7-45-19-W4	49830
UAMZ	M101	Beaverhill Lake	5000	53.40	-112.59	NW-36-51-18-W4	49891
UAMZ	M102	Beaverhill Lake	5000	53.40	-112.59	NW-36-51-18-W4	49891
UAMZ	M1564	Astotin Lake, Elk Island National Park	5000	53.63	-112.93	NW-23-54-20-W4	49893
UAMZ	M38	Beaverhill Lake	5000	53.40	-112.59	NW-36-51-18-W4	49890
UAMZ	M4178	Edson	5000	53.54	-116.50	SW-22-53-17-W5	49894
UAMZ	M4472	Beaverhill Lake	5000	53.40	-112.59	NW-36-51-18-W4	49895
UAMZ	M4843	Owl River, Lac La Biche	5000	54.91	-112.01	SW-9-69-13-W4	49897
UAMZ	M5220	Muriel Lake	5000	54.10	-110.76	NW-34-59-5-W4	49898
UAMZ	M5221	Muriel Lake	5000	54.10	-110.76	NW-34-59-5-W4	49898
UAMZ	M6641	7 mi W of Whitecourt	800	54.12	-115.88	SE-34-59-13-W5	49899
UAMZ	M670	Hardisty	5000	52.63	-111.38	SW-6-43-9-W4	49892
UAMZ	M9962	Ghostpine Creek S of Sec. Hwy 590	800	51.96	-113.39	NW-3-35-24-W4	49900

Olive-backed Pocket Mouse (*Perognathus fasciatus*)

Source	Specimen ID	Locality	Precision (m)	Latitude (center)	Longitude (center)	Approx. ATS	BSOD Observation ID
CMN	36226	Milk River, 1 mi N of the border	6900	49.39	-110.07	5-1-W4	49773
MOORE (1952)		Medicine Hat	5000	49.99	-110.76	NE-25-12-6-W4	53758
MOORE (1952)		Manyberries	5000	49.36	-110.76	NW-24-5-6-W4	53757
PMA	95.30.3	C.F.B. Suffield	800	50.48	-110.40	NE-31-17-3-W4	49568
PMA	95.30.4	C.F.B. Suffield	800	50.63	-110.38	SE-29-19-3-W4	49567
PMA	95.30.5	C.F.B. Suffield	800	50.67	-110.37	SW-4-20-3-W4	49566
PMA	95.30.6	C.F.B. Suffield	800	50.67	-110.33	SE-3-20-3-W4	49565
PMA	95.30.7	C.F.B. Suffield	800	50.27	-110.72	SE-23-15-6-W4	49564
PMA	95.30.8	C.F.B. Suffield	800	50.62	-110.33	SE-22-19-3-W4	49563
PMA	95.8.85	C.F.B. Suffield	800	50.65	-110.40	SE-31-19-3-W4	49588
PMA	95.8.86	C.F.B. Suffield	800	50.62	-110.42	SW-19-19-3-W4	49587
PMA	95.8.87	C.F.B. Suffield	800	50.60	-110.35	NW-15-19-3-W4	49586
PMA	95.8.88	C.F.B. Suffield	800	50.60	-110.32	NW-11-19-3-W4	49585
PMA	95.8.89	C.F.B. Suffield	800	50.32	-110.70	SE-1-16-6-W4	49584
PMA	97.4.2	C.F.B. Suffield	800	50.65	-110.28	SE-36-19-3-W4	49562
PMA	Z67.24.4	Manyberries	5000	49.36	-110.76	NW-24-5-6-W4	49583
PMA	Z67.24.5	Manyberries	5000	49.36	-110.76	NW-24-5-6-W4	49583
PMA	Z67.24.6	Manyberries	5000	49.36	-110.76	NW-24-5-6-W4	49582
PMA	Z67.24.7	Manyberries	5000	49.36	-110.76	NW-24-5-6-W4	49583
PMA	Z69.48.7	NW of Hilda	800	50.60	-110.17	NE-11-19-2-W4	49581
PMA	Z69.53.21	SW of Empress	800	50.67	-110.20	SE-3-20-2-W4	49579
PMA	Z69.53.22	SW of Empress	800	50.67	-110.20	SE-3-20-2-W4	49579
PMA	Z69.53.23	NW of Hilda	800	50.67	-110.20	SE-3-20-2-W4	49578
PMA	Z69.53.24	SW of Empress	800	50.67	-110.20	SE-3-20-2-W4	49577
PMA	Z69.53.25	NW of Hilda	800	50.60	-110.17	NE-11-19-2-W4	49576
PMA	Z69.53.26	NW of Hilda	800	50.60	-110.17	NE-11-19-2-W4	49575
PMA	Z69.53.27	SW of Empress	800	50.67	-110.20	SE-3-20-2-W4	49574
PMA	Z70.49.63	South-Pinhorn Grazing Reserve	800	49.10	-110.87	NW-3-2-7-W4	49573
PMA	Z70.49.64	South-Pinhorn Grazing Reserve	800	49.10	-110.87	NW-3-2-7-W4	49573
PMA	Z70.53.16	NW of Hilda	800	50.62	-110.18	SW-23-19-2-W4	49572
PMA	Z70.53.30	SW of Empress	800	50.67	-110.20	SE-3-20-2-W4	49580
PMA	Z70.58.1	NW of Hilda	800	50.62	-110.18	SW-23-19-2-W4	49571
PMA	Z70.72.1	NW of Hilda	800	50.62	-110.18	SW-23-19-2-W4	49570
PMA	Z78.66.1	Crow Indian Lake	800	49.38	-111.78	SE-14-5-14-W4	49569
SCHOWALTER AND DIGBY (1999)		near Cavendish	1200	50.74	-110.53	31-20-4-W4	50249
SCHOWALTER (2000a)		Hwy 41 ~ 11.2 km SW of turn off to Schuler	1200	50.27	-110.25	20-15-2-W4	56230

Olive-backed Pocket Mouse (*Perognathus fasciatus*)

Source	Specimen ID	Locality	Precision (m)	Latitude (center)	Longitude (center)	Approx. ATS	BSOD Observation ID
SCHOWALTER (2000a)		~ 11 mi S Bindloss, 1/2 mi east of Stelter farmstead	600	50.71	-110.25	SW-20-20-2-W4	56226
SCHOWALTER (2000b)	UAMZ 10016	Middle Coulee	100	49.34	-112.41	NE-31-4-18-W4	57248
SMITH (1981)			1200	49.28	-111.77	12-4-14-W4	53809
SMITH (1981)			1200	49.85	-111.28	27-10-10-W4	53841
SMITH (1981)			1200	49.82	-111.28	15-10-10-W4	53840
SMITH (1981)			1200	49.68	-111.30	28-8-10-W4	53839
SMITH (1981)			1200	49.49	-111.25	23-6-10-W4	53838
SMITH (1981)			1200	49.37	-111.79	11-5-14-W4	53837
SMITH (1981)			1200	49.40	-111.05	20-5-8-W4	53836
SMITH (1981)			1200	49.17	-111.60	31-2-12-W4	53835
SMITH (1981)			1200	50.04	-110.54	31-12-4-W4	53814
SMITH (1981)			1200	49.74	-111.28	15-9-10-W4	53813
SMITH (1981)			1200	49.68	-111.51	25-8-12-W4	53812
SMITH (1981)			1200	49.47	-112.21	15-6-17-W4	53811
SMITH (1981)			1200	49.38	-110.71	14-5-6-W4	53810
UAMZ	M234	Foremost	5000	49.43	-111.51	NW-16-6-11-W4	49901
UAMZ	M242	Foremost	5000	49.43	-111.51	NW-16-6-11-W4	49902
UAMZ	M6868	Pinhorn Grazing Reserve	5000	49.04	-110.92	SW-2-2-7-W4	49903
UAMZ	M6870	Pinhorn Grazing Reserve	5000	49.04	-110.92	SW-2-2-7-W4	49905
UAMZ	M9038	Grand Forks; confluence of Bow and Oldman Rivers	800	49.93	-111.70	NE-22-11-13-W4	49906

Western Harvest Mouse (*Reithrodontomys megalotis*)

Source	Specimen ID	Locality	Precision (m)	Latitude (center)	Longitude (center)	Approx. ATS	BSOD Observation ID
MOORE (1952)		near town of Milk River	5000	49.10	-112.15	SE-28-2-16-W4	53756
PMA	95.30.10	C.F.B. Suffield	800	50.45	-110.42	NW-19-17-3-W4	49597
PMA	95.30.11	C.F.B. Suffield	800	50.47	-110.55	NW-30-17-4-W4	49596
PMA	95.30.12	C.F.B. Suffield	800	50.58	-110.40	NE-6-19-3-W4	49595
PMA	95.30.13	C.F.B. Suffield	800	50.58	-110.40	NE-6-19-3-W4	49595
PMA	95.30.14	C.F.B. Suffield	800	50.58	-110.40	NE-6-19-3-W4	49595
PMA	95.30.15	C.F.B. Suffield	800	50.28	-110.63	SE-28-15-5-W4	49594
PMA	95.30.16	C.F.B. Suffield	800	50.30	-110.62	SW-34-15-5-W4	49593
PMA	95.30.17	C.F.B. Suffield	800	50.33	-110.62	NW-10-16-5-W4	49592
PMA	95.30.18	C.F.B. Suffield	800	50.22	-110.62	NW-34-14-5-W4	49591
PMA	95.30.19	C.F.B. Suffield	800	50.33	-110.67	NW-8-16-5-W4	49590
PMA	95.30.20	C.F.B. Suffield	800	50.32	-110.62	SW-3-16-5-W4	49589
PMA	95.30.9	C.F.B. Suffield	800	50.64	-110.40	NE-30-19-3-W4	49598
PMA	95.8.1	C.F.B. Suffield	800	50.68	-110.30	NW-12-20-3-W4	49654
PMA	95.8.10	C.F.B. Suffield	800	50.53	-110.45	SE-23-18-4-W4	49646
PMA	95.8.12	C.F.B. Suffield	800	50.52	-110.43	SW-13-18-4-W4	49644
PMA	95.8.13	C.F.B. Suffield	800	50.62	-110.42	SW-19-19-3-W4	49643
PMA	95.8.14	C.F.B. Suffield	800	50.48	-110.47	NE-34-17-4-W4	49642
PMA	95.8.16	C.F.B. Suffield	800	50.48	-110.40	NE-31-17-3-W4	49641
PMA	95.8.18	C.F.B. Suffield	800	50.43	-110.65	SE-17-17-5-W4	49639
PMA	95.8.19	C.F.B. Suffield	800	50.43	-110.65	SE-17-17-5-W4	49638
PMA	95.8.2	C.F.B. Suffield	800	50.65	-110.38	SE-32-19-3-W4	49653
PMA	95.8.20	C.F.B. Suffield	800	50.43	-110.63	SE-16-17-5-W4	49637
PMA	95.8.21	C.F.B. Suffield	800	50.43	-110.63	SE-16-17-5-W4	49636
PMA	95.8.22	C.F.B. Suffield	800	50.43	-110.62	SW-15-17-5-W4	49635
PMA	95.8.23	C.F.B. Suffield	800	50.38	-110.60	SW-35-16-5-W4	49634
PMA	95.8.24	C.F.B. Suffield	800	50.38	-110.60	SW-35-16-5-W4	49634
PMA	95.8.25	C.F.B. Suffield	800	50.35	-110.67	NW-17-16-5-W4	49633
PMA	95.8.26	C.F.B. Suffield	800	50.35	-110.65	NE-17-16-5-W4	49632
PMA	95.8.27	C.F.B. Suffield	800	50.35	-110.65	NE-17-16-5-W4	49631
PMA	95.8.28	C.F.B. Suffield	800	50.35	-110.62	NW-15-16-5-W4	49630
PMA	95.8.29	C.F.B. Suffield	800	50.35	-110.62	NW-15-16-5-W4	49629
PMA	95.8.3	C.F.B. Suffield	800	50.65	-110.33	SE-34-19-3-W4	49652
PMA	95.8.30	C.F.B. Suffield	800	50.35	-110.60	NW-14-16-5-W4	49628
PMA	95.8.31	C.F.B. Suffield	800	50.35	-110.60	NW-14-16-5-W4	49627
PMA	95.8.32	C.F.B. Suffield	800	50.35	-110.60	NW-14-16-5-W4	49627

Western Harvest Mouse (*Reithrodontomys megalotis*)

Source	Specimen ID	Locality	Precision (m)	Latitude (center)	Longitude (center)	Approx. ATS	BSOD Observation ID
PMA	95.8.33	C.F.B. Suffield	800	50.35	-110.60	NW-14-16-5-W4	49626
PMA	95.8.34	C.F.B. Suffield	800	50.35	-110.60	NW-14-16-5-W4	49625
PMA	95.8.35	C.F.B. Suffield	800	50.32	-110.72	SE-2-16-6-W4	49624
PMA	95.8.36	C.F.B. Suffield	800	50.32	-110.72	SE-2-16-6-W4	49624
PMA	95.8.37	C.F.B. Suffield	800	50.32	-110.72	SE-2-16-6-W4	49623
PMA	95.8.38	C.F.B. Suffield	800	50.32	-110.70	SE-1-16-6-W4	49622
PMA	95.8.39	C.F.B. Suffield	800	50.32	-110.70	SE-1-16-6-W4	49621
PMA	95.8.4	C.F.B. Suffield	800	50.62	-110.42	SW-19-19-3-W4	49651
PMA	95.8.40	C.F.B. Suffield	800	50.32	-110.70	SE-1-16-6-W4	49621
PMA	95.8.41	C.F.B. Suffield	800	50.32	-110.68	SW-6-16-5-W4	49620
PMA	95.8.42	C.F.B. Suffield	800	50.32	-110.67	SW-5-16-5-W4	49619
PMA	95.8.43	C.F.B. Suffield	800	50.32	-110.65	SE-5-16-5-W4	49618
PMA	95.8.44	C.F.B. Suffield	800	50.32	-110.63	SE-4-16-5-W4	49617
PMA	95.8.45	C.F.B. Suffield	800	50.28	-110.68	SW-30-15-5-W4	49616
PMA	95.8.46	C.F.B. Suffield	800	50.28	-110.68	SW-30-15-5-W4	49615
PMA	95.8.47	C.F.B. Suffield	800	50.28	-110.67	SW-29-15-5-W4	49614
PMA	95.8.48	C.F.B. Suffield	800	50.28	-110.67	SW-29-15-5-W4	49613
PMA	95.8.49	C.F.B. Suffield	800	50.28	-110.65	SE-29-15-5-W4	49612
PMA	95.8.5	C.F.B. Suffield	800	50.62	-110.42	SW-19-19-3-W4	49651
PMA	95.8.50	C.F.B. Suffield	800	50.28	-110.65	SE-29-15-5-W4	49612
PMA	95.8.51	C.F.B. Suffield	800	50.47	-110.55	NW-30-17-4-W4	49611
PMA	95.8.52	C.F.B. Suffield	800	50.28	-110.63	SE-28-15-5-W4	49610
PMA	95.8.53	C.F.B. Suffield	800	50.28	-110.63	SE-28-15-5-W4	49609
PMA	95.8.54	C.F.B. Suffield	800	50.47	-110.55	NW-30-17-4-W4	49608
PMA	95.8.55	C.F.B. Suffield	800	50.28	-110.63	SE-28-15-5-W4	49607
PMA	95.8.56	C.F.B. Suffield	800	50.28	-110.63	SE-28-15-5-W4	49607
PMA	95.8.57	C.F.B. Suffield	800	50.28	-110.62	SW-27-15-5-W4	49606
PMA	95.8.58	C.F.B. Suffield	800	50.28	-110.62	SW-27-15-5-W4	49605
PMA	95.8.59	C.F.B. Suffield	800	50.28	-110.62	SW-27-15-5-W4	49605
PMA	95.8.6	C.F.B. Suffield	800	50.62	-110.32	SW-23-19-3-W4	49650
PMA	95.8.60	C.F.B. Suffield	800	50.28	-110.62	SW-27-15-5-W4	49604
PMA	95.8.61	C.F.B. Suffield	800	50.28	-110.62	SW-27-15-5-W4	49604
PMA	95.8.62	C.F.B. Suffield	800	50.28	-110.62	SW-27-15-5-W4	49604
PMA	95.8.63	C.F.B. Suffield	800	50.28	-110.60	SW-26-15-5-W4	49603
PMA	95.8.64	C.F.B. Suffield	800	50.28	-110.60	SW-26-15-5-W4	49603
PMA	95.8.65	C.F.B. Suffield	800	50.28	-110.60	SW-26-15-5-W4	49602

Western Harvest Mouse (*Reithrodontomys megalotis)*

Source	Specimen ID	Locality	Precision (m)	Latitude (center)	Longitude (center)	Approx. ATS	BSOD Observation ID
PMA	95.8.66	C.F.B. Suffield	800	50.28	-110.60	SW-26-15-5-W4	49602
PMA	95.8.67	C.F.B. Suffield	800	50.25	-110.68	NW-7-15-5-W4	49601
PMA	95.8.68	C.F.B. Suffield	800	50.25	-110.67	NW-8-15-5-W4	49600
PMA	95.8.69	C.F.B. Suffield	800	50.47	-110.55	NW-30-17-4-W4	49599
PMA	95.8.7	C.F.B. Suffield	800	50.62	-110.32	SW-23-19-3-W4	49649
PMA	95.8.8	C.F.B. Suffield	800	50.57	-110.45	NE-35-18-4-W4	49648
PMA	95.8.9	C.F.B. Suffield	800	50.57	-110.43	NW-36-18-4-W4	49647
UAMZ	M178	Medicine Hat	5000	49.99	-110.76	NE-25-12-6-W4	49907
UAMZ	M5036	Pinhorn Grazing Reserve	5000	49.04	-110.92	SW-2-2-7-W4	49908

Northern Grasshopper Mouse (*Onychomys leucogaster*)

Source	Specimen ID	Locality	Precision (m)	Latitude (center)	Longitude (center)	Approx. ATS	BSOD Observation ID
CMN	3707	Sandhill Creek, Red Deer River	5000	50.72	-111.59	SE-7-21-11-W4	49774
NMNH	69043	Calgary	5000	51.00	-114.14	NW-15-24-1-W5	49458
NMNH	69044	Calgary	5000	51.00	-114.14	NW-15-24-1-W5	49459
NMNH	69045	Medicine Hat	5000	49.99	-110.76	NE-25-12-6-W4	49460
PMA	95.30.1	C.F.B. Suffield	800	50.40	-110.67	SW-5-17-5-W4	49656
PMA	95.8.74	C.F.B. Suffield	800	50.65	-110.35	SW-34-19-3-W4	49673
PMA	95.8.75	C.F.B. Suffield	800	50.65	-110.33	SE-34-19-3-W4	49672
PMA	95.8.76	C.F.B. Suffield	800	50.65	-110.32	SW-35-19-3-W4	49671
PMA	95.8.77	C.F.B. Suffield	800	50.65	-110.37	SW-33-19-3-W4	49670
PMA	95.8.78	C.F.B. Suffield	800	50.62	-110.30	SW-24-19-3-W4	49669
PMA	95.8.79	C.F.B. Suffield	800	50.62	-110.30	SW-24-19-3-W4	49668
PMA	95.8.80	C.F.B. Suffield	800	50.52	-110.50	SW-16-18-4-W4	49667
PMA	95.8.81	C.F.B. Suffield	800	50.52	-110.50	SW-16-18-4-W4	49666
PMA	95.8.82	C.F.B. Suffield	800	50.28	-110.68	SW-30-15-5-W4	49665
PMA	95.8.83	C.F.B. Suffield	800	50.28	-110.68	SW-30-15-5-W4	49664
PMA	95.8.84	C.F.B. Suffield	800	50.28	-110.68	SW-30-15-5-W4	49663
PMA	97.4.3	C.F.B. Suffield	800	50.62	-110.30	SW-24-19-3-W4	49655
PMA	Z69.53.40	NW of Hilda	800	50.60	-110.17	NE-11-19-2-W4	49658
PMA	Z75.31.13	Pinhorn Grazing Reserve	800	49.07	-110.83	NE-26-1-7-W4	49662
PMA	Z75.31.14	Pinhorn Grazing Reserve	800	49.07	-110.83	NE-26-1-7-W4	49661
PMA	Z75.31.15	Pinhorn Grazing Reserve	800	49.07	-110.83	NE-26-1-7-W4	49660
PMA	Z75.31.16	Pinhorn Grazing Reserve	800	49.07	-110.83	NE-26-1-7-W4	49659
PMA	Z75.38.64	Bindloss (Red Deer River)	800	50.95	-110.45	NE-11-23-4-W4	49657
SCHOWALTER AND DIGBY (1997)		~ 15km S and 35km E of Drumheller	1200	51.31	-112.17	15-27-16-W4	50280
SCHOWALTER AND DIGBY (1997)		~ 10km S and 20km E of Drumheller	1200	51.35	-112.43	35-27-18-W4	50279
SCHOWALTER AND DIGBY (1997)		~ 15km S and 15km W of Drumheller	1200	51.31	-112.92	17-27-21-W4	50277
SCHOWALTER AND DIGBY (1997)		~ 15km S and 15km W of Hanna	1200	51.44	-112.20	33-28-16-W4	50276
SCHOWALTER AND DIGBY (1997)		~ 30km E an 5km S of Morin	1200	51.61	-112.27	36-30-17-W4	50275
SCHOWALTER AND DIGBY (1997)		~ 15km E an 5km S of Morin	1200	51.61	-112.53	31-30-18-W4	50274
SCHOWALTER AND DIGBY (1997)		~ 10km S of Morin	1200	51.55	-112.76	9-30-20-W4	50273
SCHOWALTER AND DIGBY (1997)		~ 20km S and 20km W of Consort	1200	51.80	-111.10	5-33-8-W4	50272
SCHOWALTER AND DIGBY (1997)		~ 25km S of Cornation	1200	51.87	-111.53	32-33-11-W4	50271
SCHOWALTER AND DIGBY (1997)		~ 20km N and 20km W of Hanna	1200	51.83	-112.19	15-33-16-W4	50270
SCHOWALTER AND DIGBY (1997)		~ 30km E and 10km N of Consort	1200	52.08	-110.30	12-36-3-W4	50269
SCHOWALTER AND DIGBY (1997)		~ 20km S of Hardisty	1200	52.50	-111.19	2-41-9-W4	50268
SCHOWALTER AND DIGBY (1997)		~ 15km N of Stettler	1200	52.44	-112.66	15-40-19-W4	50267

Northern Grasshopper Mouse (*Onychomys leucogaster)*

Source	Specimen ID	Locality	Precision (m)	Latitude (center)	Longitude (center)	Approx. ATS	BSOD Observation ID
SCHOWALTER AND DIGBY (1999)		near Compeer	1200	51.96	-110.06	34-34-1-W4	50253
SCHOWALTER AND DIGBY (1999)		~ 5 km S of Sibbald	1200	51.29	-110.20	10-27-2-W4	50252
SCHOWALTER AND DIGBY (1999)		near Cavendish	1200	50.74	-110.55	31-20-4-W4	50251
SCHOWALTER AND DIGBY (1999)	UAMZ 9949	~10 km S of Warner	1200	49.20	-112.19	11-3-17-W4	50250
SCHOWALTER (2000a)		Hwy 41 ~ 11.2 km SW of turn off to Schuler	1200	50.27	-110.25	20-15-2-W4	56231
SCHOWALTER (2000a)		~ 11 mi S Bindloss, 1/2 mi east of Stelter farmstead	600	50.71	-110.25	SW-20-20-2-W4	56225
SCHOWALTER (2000a)	UAMZ 10004	Under Battle River bridge on Sec. Hwy 872	1200	52.40	-111.41	32-39-10-W4	54846
SCHOWALTER (2000b)		E. of Carmengay	300	50.14	-113.00	-6-14-22-W4	57264
SCHOWALTER (2000b)	UAMZ 10018	E. of Stavely	100	50.16	-113.35	NE-9-14-25-W4	57257
SCHOWALTER (2000b)		SW of Standard	100	51.04	-113.07	SW-18-24-22-W4	57253
SCHOWALTER (2000b)	UAMZ 10006	Middle Coulee	100	49.34	-112.41	NE-31-4-18-W4	57251
SCHOWALTER (2000b)		Little Bow River	100	50.16	-113.30	NE-11-14-25-W4	57243
SCHOWALTER (2000b)		N. of Cluny	100	50.95	-112.87	NE-9-23-21-W4	57230
SMITH (1981)			1200	49.82	-111.28	15-10-10-W4	53843
SMITH (1981)			1200	49.49	-111.25	23-6-10-W4	53842
SMITH (1981)			1200	49.74	-111.28	15-9-10-W4	53821
SMITH (1981)			1200	49.68	-111.51	25-8-12-W4	53820
SMITH (1981)			1200	49.52	-111.09	36-6-9-W4	53819
SMITH (1981)			1200	49.38	-111.18	17-5-9-W4	53818
SMITH (1981)			1200	49.22	-111.50	24-3-12-W4	53816
SMITH (1981)			1200	49.22	-111.52	23-3-12-W4	53815
SMITH (1992)			6900	51.58	-112.61	30-19-W4	54327
SMITH (1992)			600	51.59	-112.52	NE-19-30-18-W4	54326
SMITH (1992)			600	51.51	-112.54	NE-25-29-19-W4	54325
SMITH (1992)			600	51.52	-112.07	SE-32-29-15-W4	54324
SMITH (1992)			600	51.25	-112.42	SW-26-26-18-W4	54323
SMITH (1992)			600	51.10	-112.17	SE-4-25-16-W4	54322
SMITH (1992)			1200	51.80	-112.90	3-33-21-W4	54316
UAMZ	M1011	Manyberries	5000	49.36	-110.76	NW-24-5-6-W4	49916
UAMZ	M124	Compeer	5000	51.81	-110.08	SE-25-33-1-W4	49911
UAMZ	M183	Taber	5000	49.74	-112.21	SW-5-10-16-W4	49912
UAMZ	M200	Vulcan	5000	50.36	-113.33	SE-5-17-24-W4	49913
UAMZ	M235	Foremost	5000	49.43	-111.51	NW-16-6-11-W4	49914
UAMZ	M243	Foremost	5000	49.43	-111.51	NW-16-6-11-W4	49915
UAMZ	M6	San Francisco Lake	5000	50.54	-112.19	NW-2-19-16-W4	49909
UAMZ	M7	Pollockville	5000	51.06	-111.66	NE-3-25-12-W4	49910

Northern Grasshopper Mouse (*Onychomys leucogaster*)

Source	Specimen ID	Locality	Precision (m)	Latitude (center)	Longitude (center)	Approx. ATS	BSOD Observation ID
UAMZ	M7785	18 mi E of Pearce	800	49.78	-112.88	NE-1-10-22-W4	49917
UAMZ	M8055	9 mi W and 20 mi S of Empress	800	50.65	-110.24	NW-3-20-2-W4	49918

Taiga Vole (*Microtus xanthognathus*)

Source	Specimen ID	Locality	Precision (m)	Latitude (center)	Longitude (center)	Approx. ATS	BSOD Observation ID
MCZ	18894	Peace Point on the Peace River	800	59.12	-112.46	NW-35-116-15-W4	49487
MCZ	18895	Mouth of Peace River	6900	58.99	-111.46	115-9-W4	49488
MCZ	18896	Peace Point on the Peace River	800	59.12	-112.46	NW-35-116-15-W4	49489
MCZ	18897	Peace Point on the Peace River	800	59.12	-112.46	NW-35-116-15-W4	49490
MCZ	18939	Peace Point on the Peace River	800	59.12	-112.46	NW-35-116-15-W4	49491
NMNH	91190	40 mi E of Jasper House at Cache Apocotte Creek	5000	53.38	-117.58	NW-20-51-24-W5	49475
NMNH	109459	Athabasca River, Crooked Rapid	800	56.59	-111.88	SW-4-88-12-W4	49476
NMNH	129547	Athabasca River, Grand Rapids	800	56.32	-112.62	NW-34-84-17-W4	49478
NMNH	129548	Athabasca River, Grand Rapids	800	56.32	-112.62	NW-34-84-17-W4	49479
NMNH	134073	Athabasca River, 30 mi above Pelican Rapid	6900	55.50	-112.72	75-18-W4	49481
NMNH	134074	Athabasca River, 30 mi above Pelican Rapid	6900	55.50	-112.72	75-18-W4	49481
NMNH	134075	Athabasca River, 30 mi above Pelican Rapid	6900	55.50	-112.72	75-18-W4	49481
NMNH	134076	Athabasca River, 30 mi above Pelican Rapid	6900	55.50	-112.72	75-18-W4	49481
NMNH	134077	Athabasca River, 30 mi above Pelican Rapid	6900	55.50	-112.72	75-18-W4	49481
NMNH	134078	Athabasca River, 30 mi above Pelican Rapid	6900	55.50	-112.72	75-18-W4	49481
NMNH	134079	Athabasca River, 30 mi above Pelican Rapid	6900	55.50	-112.72	75-18-W4	49481
NMNH	235921	Peace Point on the Peace River	800	59.12	-112.46	NW-35-116-15-W4	49482
NMNH	235922	Peace Point on the Peace River	800	59.12	-112.46	NW-35-116-15-W4	49483
NMNH	235923	Peace Point on the Peace River	800	59.12	-112.46	NW-35-116-15-W4	49484

Prairie Vole (*Microtus ochrogaster*)

Source	Specimen ID	Locality	Precision (m)	Latitude (center)	Longitude (center)	Approx. ATS	BSOD Observation ID
CMN	26228	Battle River, near Fabyan	6900	52.89	-110.95	45-7-W4	49775
CMN	3876	Islay	1200	53.39	-110.53	51-4-W4	49780
CMN	6836	Islay	1200	53.39	-110.53	51-4-W4	49779
CMN	6844	Islay	1200	53.39	-110.53	51-4-W4	49776
CMN	6845	Islay	1200	53.39	-110.53	51-4-W4	49777
CMN	6847	Islay	1200	53.39	-110.53	51-4-W4	49778
NMNH	69099	Edmonton	5000	53.48	-113.57	SE-32-52-24-W4	49464
NMNH	69127	Edmonton	5000	53.48	-113.57	SE-32-52-24-W4	49465
NMNH	69129	Red Deer	5000	52.22	-113.88	SW-16-38-27-W4	49466
PMA	86.18.6	St. Paul	800	54.03	-111.38	NW-23-58-10-W4	49674
ROM	2404140012	Didsbury, Little Red Deer River	800	51.67	-114.13	SW-19-31-1-W5	49841
ROM	2811040030	Red Deer	5000	52.27	-113.80	SE-16-38-27-W4	49840
ROM	2811040031	Red Deer	5000	52.27	-113.80	SE-16-38-27-W4	49839
ROM	2811040032	Red Deer	5000	52.27	-113.80	SE-16-38-27-W4	49838
ROM	2811040033	Red Deer	5000	52.27	-113.80	SE-16-38-27-W4	49836
SCHOWALTER AND DIGBY (1997)		~ 20km S of Hardisty	1200	52.50	-111.19	2-41-9-W4	50282
SCHOWALTER AND DIGBY (1997)	UAMZ 9951	near Wimborne	1200	51.92	-113.68	18-34-26-W4	50254
SCHOWALTER AND DIGBY (1997)	UAMZ 9952	near Wimborne	1200	51.92	-113.68	18-34-26-W4	50254
SCHOWALTER (2000a)	UAMZ 10005	~18 mi W of Three Hills	600	51.72	-113.71	NW-1-32-27-W4	56221
SCHOWALTER (2000b)	UAMZ 10017	NW of Madden	100	51.47	-114.30	NW-12-29-3-W5	57244
SCHOWALTER (2000b)	UAMZ 10009	S. of Cochrane. NW of Junction of Hwy 22 and 4	100	51.10	-114.46	NW-35-24-4-W5	57233
UAMZ	M1016	4 mi S of Vermilion	800	53.28	-110.89	SW-8-50-6-W4	49919
UAMZ	M1017	4 mi S of Vermilion	800	53.28	-110.89	SW-8-50-6-W4	49919
UAMZ	M1018	4 mi S of Vermilion	800	53.28	-110.89	SW-8-50-6-W4	49919
UAMZ	M1019	4 mi S of Vermilion	800	53.28	-110.89	SW-8-50-6-W4	49919
UAMZ	M1031	4 mi S of Vermilion	800	53.28	-110.89	SW-8-50-6-W4	49920
UAMZ	M1034	4 mi S of Vermilion	800	53.28	-110.89	SW-8-50-6-W4	49920
UAMZ	M1037	4 mi S of Vermilion	800	53.28	-110.89	SW-8-50-6-W4	49919
UAMZ	M1038	4 mi S of Vermilion	800	53.28	-110.89	SW-8-50-6-W4	49919
UAMZ	M1040	4 mi S of Vermilion	800	53.28	-110.89	SW-8-50-6-W4	49919
UAMZ	M1041	4 mi S of Vermilion	800	53.28	-110.89	SW-8-50-6-W4	49919
UAMZ	M1044	4 mi S of Vermilion	800	53.28	-110.89	SW-8-50-6-W4	49919
UAMZ	M1045	4 mi S of Vermilion	800	53.28	-110.89	SW-8-50-6-W4	49919
UAMZ	M1046	4 mi S of Vermilion	800	53.28	-110.89	SW-8-50-6-W4	49919
UAMZ	M1047	4 mi S of Vermilion	800	53.28	-110.89	SW-8-50-6-W4	49921
UAMZ	M1048	4 mi S of Vermilion	800	53.28	-110.89	SW-8-50-6-W4	49921

Prairie Vole (*Microtus ochrogaster*)

Source	Specimen ID	Locality	Precision (m)	Latitude (center)	Longitude (center)	Approx. ATS	BSOD Observation ID
UAMZ	M1049	4 mi S of Vermilion	800	53.28	-110.89	SW-8-50-6-W4	49921
UAMZ	M1050	4 mi S of Vermilion	800	53.28	-110.89	SW-8-50-6-W4	49921
UAMZ	M1051	4 mi S of Vermilion	800	53.28	-110.89	SW-8-50-6-W4	49921
UAMZ	M1053	4 mi S of Vermilion	800	53.28	-110.89	SW-8-50-6-W4	49921
UAMZ	M1054	4 mi S of Vermilion	800	53.28	-110.89	SW-8-50-6-W4	49921
UAMZ	M2294	Astotin Lake, Elk Island National Park	5000	53.63	-112.93	NW-23-54-20-W4	49922
UAMZ	M4756	Kenilworth Lake	5000	53.29	-110.60	NE-21-50-4-W4	49923
UAMZ	M4757	Kenilworth Lake	5000	53.29	-110.60	NE-21-50-4-W4	49923
UAMZ	M4880	Battle River, 12 mi S of Hardisty	800	52.49	-111.29	NW-5-41-9-W4	49924
UAMZ	M4881	Battle River, 12 mi S of Hardisty	800	52.49	-111.29	NW-5-41-9-W4	49925

Water Vole (*Microtus richardsoni*)

Source	Specimen ID	Locality	Precision (m)	Latitude (center)	Longitude (center)	Approx. ATS	BSOD Observation ID
CMN	10762	Tonquin Valley, Jasper National Park (6540 ft)	6900	52.71	-118.22	43-2-W6	49798
CMN	10767	Tonquin Valley, Jasper National Park (6540 ft)	6900	52.71	-118.22	43-2-W6	49796
CMN	10771	Tonquin Valley, Jasper National Park (6540 ft)	6900	52.71	-118.22	43-2-W6	49797
CMN	10772	Tonquin Valley, Jasper National Park (6540 ft)	6900	52.71	-118.22	43-2-W6	49800
CMN	10777	Tonquin Valley, Jasper National Park (6540 ft)	6900	52.71	-118.22	43-2-W6	49799
CMN	26242	Highwood Pass	6900	50.62	-115.04	19-8-W5	49783
CMN	26243	Highwood Pass	6900	50.62	-115.04	19-8-W5	49784
CMN	26244	Highwood Pass	6900	50.62	-115.04	19-8-W5	49782
CMN	5038	Bertha Creek, Waterton Lakes National Park	6900	49.04	-113.94	1-30-W4	49791
CMN	5073	Bertha Creek, Waterton Lakes National Park	6900	49.04	-113.94	1-30-W4	49794
CMN	5085	Bertha Creek, Waterton Lakes National Park	6900	49.04	-113.94	1-30-W4	49790
CMN	5086	Bertha Creek, Waterton Lakes National Park	6900	49.04	-113.94	1-30-W4	49788
CMN	50936	Kananaskis Valley, Marmot Cirque Mount Allan	800	50.95	-115.22	NE-8-23-9-W5	49786
CMN	50937	Kananaskis Valley, Mount Allan Cirque	800	50.95	-115.23	NW-8-23-9-W5	49785
CMN	50938	Kananaskis Valley, Mount Allan Cirque	800	50.95	-115.23	NW-8-23-9-W5	49781
CMN	5125	Waterton Lakes National Park, near Belly River	5000	49.00	-113.75	SW-21-1-28-W4	49793
CMN	5128	Waterton Lakes National Park, near Belly River	5000	49.00	-113.75	SW-21-1-28-W4	49787
NMNH	174470	Head of Smoky River	6900	53.24	-119.10	49-8-W6	49472
NMNH	174473	Head of Smoky River	6900	53.24	-119.10	49-8-W6	49473
NMNH	174474	Head of Smoky River	6900	53.24	-119.10	49-8-W6	49473
NMNH	174476	Head of Smoky River	6900	53.24	-119.10	49-8-W6	49474
NMNH	81377	25 mi W of Henry House, in the mountains	6900	52.97	-118.51	46-4-W6	49467
NMNH	81378	25 mi W of Henry House, in the mountains	6900	52.97	-118.51	46-4-W6	49467
NMNH	81379	25 mi W of Henry House, in the mountains	6900	52.97	-118.51	46-4-W6	49468
NMNH	81380	25 mi W of Henry House, in the mountains	6900	52.97	-118.51	46-4-W6	49468
NMNH	81381	25 mi W of Henry House, in the mountains	6900	52.97	-118.51	46-4-W6	49469
NMNH	81382	25 mi W of Henry House, in the mountains	6900	52.97	-118.51	46-4-W6	49469
NMNH	81383	25 mi W of Henry House, in the mountains	6900	52.97	-118.51	46-4-W6	49470
NMNH	81384	15 mi W of Henry House, in the mountains	6900	52.97	-118.22	46-2-W6	49471
PMA	Z76.105.15	Cirque, Mt. Putnik, N slope, Kananaskis Park	800	50.65	-115.25	SE-36-19-10-W5	49676
PMA	Z76.105.16	Cirque, Mt. Putnik, N slope, Kananaskis Park	800	50.65	-115.25	SE-36-19-10-W5	49676
PMA	Z76.105.20	Upper Burstall Lake, Kananaskis Park	800	50.65	-115.25	SE-36-19-10-W5	49675
PMA	Z76.67.5	Kananaskis Park	800	50.95	-115.12	NW-7-23-8-W5	49678
PMA	Z76.79.14	Fox Creek, Kananaskis Park	800	50.72	-115.10	NW-19-20-8-W5	49677
UAMZ	M2181	Waterton Lakes National Park	5000	49.05	-114.02	SW-4-2-30-W4	49927
UAMZ	M4841	Highwood Pass	6900	50.62	-115.04	19-8-W5	49928

Water Vole (*Microtus richardsoni)*

Source	Specimen ID	Locality	Precision (m)	Latitude (center)	Longitude (center)	Approx. ATS	BSOD Observation ID
UAMZ	M4842	Highwood Pass	6900	50.62	-115.04	19-8-W5	49928
UAMZ	M571	Cameron Lake, Waterton Lakes National Park	5000	49.00	-114.12	NE-3-1-1-W5	49926
UAMZ	M8504	Storm Creek, Highwood Pass	6900	50.53	-114.90	18-7-W5	49931
UAMZ	M8505	Storm Creek, Highwood Pass	6900	50.53	-114.90	18-7-W5	49932
UAMZ	M8506	Storm Creek, Highwood Pass	6900	50.53	-114.90	18-7-W5	49932
UAMZ	M8507	Storm Creek, Highwood Pass	6900	50.53	-114.90	18-7-W5	49932
WALLIS AND WERSHLER (1997)		Waterton Lakes National Park	100	49.03	-114.05	NW-11-1-1-W5	49435
WALLIS AND WERSHLER (1997)		Waterton Lakes National Park	100	49.01	-114.01	NE-1-1-1-W5	49434
WALLIS AND WERSHLER (1997)		Waterton Lakes National Park	100	49.09	-114.13	NW-31-1-1-W5	49433
WALLIS AND WERSHLER (1997)		Waterton Lakes National Park	100	49.01	-114.01	NE-1-1-1-W5	49432
WALLIS AND WERSHLER (1997)		Waterton Lakes National Park	100	49.01	-114.01	NE-1-1-1-W5	49431
WALLIS AND WERSHLER (1997)		Waterton Lakes National Park	100	49.01	-114.03	NE-2-1-1-W5	49430
WALLIS AND WERSHLER (1997)		Waterton Lakes National Park	100	49.03	-114.06	NW-10-1-1-W5	49429
WALLIS AND WERSHLER (1997)		Waterton Lakes National Park	100	49.07	-114.07	NW-27-1-1-W5	49428
WALLIS AND WERSHLER (1997)		Waterton Lakes National Park	100	49.07	-114.07	NW-27-1-1-W5	49427
WALLIS AND WERSHLER (1997)		Waterton Lakes National Park	100	49.07	-114.06	NW-27-1-1-W5	49426
WALLIS AND WERSHLER (1997)		Waterton Lakes National Park	100	49.07	-114.06	NW-27-1-1-W5	49425

Sagebrush Vole (*Lemmiscus curtatus*)

Source	Specimen ID	Locality	Precision (m)	Latitude (center)	Longitude (center)	Approx. ATS	BSOD Observation ID
CMN	26269	Red Deer River, 9 mi NW of Drumheller	6900	51.49	-112.89	29-21-W4	49802
CMN	26270	Red Deer River, 9 mi NW of Drumheller	6900	51.49	-112.89	29-21-W4	49803
CMN	3182	Little Sandhill Creek at Deadlodge Canyon	800	50.76	-111.52	SE-7-21-11-W4	49801
NMNH	69048	Calgary	5000	51.00	-114.14	NW-15-24-1-W5	49461
NMNH	69049	Calgary	5000	51.00	-114.14	NW-15-24-1-W5	49462
NMNH	69050	Calgary	5000	51.00	-114.14	NW-15-24-1-W5	49463
PMA	83.28.11	Sage Creek, 10km N of Wildhorse, Highway 41	800	49.10	-110.25	NW-5-2-2-W4	49686
PMA	86.29.13	10.5 mi N, 2.5 mi E of Onefour	800	49.27	-110.40	SW-6-4-3-W4	49683
PMA	86.29.15	10.5 mi N, 2.5 mi E of Onefour	800	49.27	-110.40	SW-6-4-3-W4	49683
PMA	86.29.4	10.5 mi N, 2.5 mi E of Onefour	800	49.27	-110.40	SW-6-4-3-W4	49685
PMA	86.29.5	10.5 mi N, 2.5 mi E of Onefour	800	49.27	-110.40	SW-6-4-3-W4	49682
PMA	86.29.6	10.5 mi N, 2.5 mi E of Onefour	800	49.27	-110.40	SW-6-4-3-W4	49684
PMA	90.19.103	13 mi S, 2.5 mi E of Magrath	800	49.22	-112.82	NE-18-3-21-W4	49681
PMA	91.34.7	13 mi S, 2.5 mi E of Magrath	800	49.22	-112.82	NE-18-3-21-W4	49680
PMA	95.8.90	C.F.B. Suffield	800	50.28	-110.80	SW-29-15-6-W4	49691
PMA	97.4.1	C.F.B. Suffield	800	50.28	-110.80	SW-29-15-6-W4	49679
PMA	Z74.111.1	Oldman River	800	49.83	-114.18	SE-22-10-2-W5	49689
PMA	Z74.111.2	Oldman River	800	49.83	-114.20	SW-22-10-2-W5	49688
PMA	Z75.54.1	4 mi S of Cessford	800	50.93	-111.55	NE-1-23-12-W4	49687
PMA	Z81.76.1	6 mi S of Cochrane	800	51.18	-114.47	SW-2-26-4-W5	49690
SCHOWALTER AND DIGBY (1997)		~ 25km W of Acadia Valley	1200	51.12	-110.57	12-25-5-W4	50293
SCHOWALTER AND DIGBY (1997)		~ 15km S and 35km E of Drumheller	1200	51.31	-112.17	15-27-16-W4	50292
SCHOWALTER AND DIGBY (1997)		~ 10km S and 20km E of Drumheller	1200	51.35	-112.43	35-27-18-W4	50291
SCHOWALTER AND DIGBY (1997)		~ 20km S of Drumheller	1200	51.28	-112.81	6-27-20-W4	50290
SCHOWALTER AND DIGBY (1997)		~ 15km S and 15km W of Drumheller	1200	51.31	-112.92	17-27-21-W4	50289
SCHOWALTER AND DIGBY (1997)		~ 15km S and 15km W of Hanna	1200	51.44	-112.20	33-28-16-W4	50288
SCHOWALTER AND DIGBY (1997)		~ 30km E an 5km S of Morin	1200	51.61	-112.27	36-30-17-W4	50287
SCHOWALTER AND DIGBY (1997)		~ 15km E an 5km S of Morin	1200	51.61	-112.53	31-30-18-W4	50286
SCHOWALTER AND DIGBY (1997)		~ 20km S and 20km W of Consort	1200	51.80	-111.10	5-33-8-W4	50285
SCHOWALTER AND DIGBY (1997)		~ 25km S of Cornation	1200	51.87	-111.53	32-33-11-W4	50284
SCHOWALTER AND DIGBY (1997)		~ 20km N and 20km W of Hanna	1200	51.83	-112.19	15-33-16-W4	50283
SCHOWALTER AND DIGBY (1999)		near Compeer	1200	51.96	-110.06	34-34-1-W4	50262
SCHOWALTER AND DIGBY (1999)		~ 5km S of Sibbald	1200	51.29	-110.20	10-27-2-W4	50261
SCHOWALTER AND DIGBY (1999)		near Cavendish	1200	50.74	-110.55	31-20-4-W4	50260
SCHOWALTER AND DIGBY (1999)		near St. Mary River	1200	49.05	-113.24	23-1-25-W4	50259
SCHOWALTER AND DIGBY (1999)		near Whisky Gap	1200	49.05	-113.04	20-1-23-W4	50258

Sagebrush Vole (*Lemmiscus curtatus*)

Source	Specimen ID	Locality	Precision (m)	Latitude (center)	Longitude (center)	Approx. ATS	BSOD Observation ID
SCHOWALTER AND DIGBY (1999)		~10km E of Del Bonita	1200	49.02	-112.53	7-1-19-W4	50257
SCHOWALTER AND DIGBY (1999)		~10km S of Warner	1200	49.20	-112.19	11-3-17-W4	50256
SCHOWALTER AND DIGBY (1999)		near town of Milk River	1200	49.15	-112.22	28-2-17-W4	50255
SCHOWALTER (2000b)		E. of Carmengay	300	50.14	-113.004566	-6-14-22-W4	57265
SCHOWALTER (2000b)		E. of Stavely	100	50.16	-113.350537	NE-9-14-25-W4	57258
SCHOWALTER (2000b)		SW of Standard	100	51.04	-113.069439	SW-18-24-22-W4	57254
SCHOWALTER (2000b)	UAMZ 10008	Mountain View	100	49.12	-113.614681	SE-13-2-28-W4	57252
SCHOWALTER (2000b)		Middle Coulee	100	49.34	-112.411370	NE-31-4-18-W4	57249
SCHOWALTER (2000b)		Little Bow River	100	50.16	-113.304043	NE-11-14-25-W4	57241
SCHOWALTER (2000b)	UAMZ 10014	N. of Leavitt	100	49.25	-113.619057	SE-31-3-27-W4	57237
SCHOWALTER (2000b)	UAMZ 10011	N. of Cowley	100	49.75	-114.137924	NE-24-9-2-W5	57236
SCHOWALTER (2000b)		N. of Cluny	100	50.95	-112.867280	NE-9-23-21-W4	57231
SMITH (1981)			1200	51.12	-111.97	12-25-15-W4	53856
SMITH (1981)			1200	51.12	-111.85	11-25-14-W4	53855
SMITH (1981)			1200	51.09	-111.64	32-24-12-W4	53854
SMITH (1981)			6900	50.18	-111.16	14-9-W4	53853
SMITH (1981)			6900	50.09	-111.44	13-11-W4	53852
SMITH (1981)			6900	50.00	-111.57	12-12-W4	53851
SMITH (1981)			1200	49.82	-111.28	15-10-10-W4	53849
SMITH (1981)			6900	49.74	-111.83	9-14-W4	53848
SMITH (1981)			1200	49.49	-111.14	22-6-9-W4	53846
SMITH (1981)			1200	49.37	-111.79	11-5-14-W4	53845
SMITH (1981)			1200	50.04	-110.54	31-12-4-W4	53834
SMITH (1981)			1200	49.74	-111.28	15-9-10-W4	53833
SMITH (1981)			1200	49.68	-111.51	25-8-12-W4	53832
SMITH (1981)			1200	49.47	-112.21	15-6-17-W4	53831
SMITH (1981)			1200	49.44	-111.30	4-6-10-W4	53830
SMITH (1981)			1200	49.52	-111.09	36-6-9-W4	53829
SMITH (1981)			1200	49.38	-111.18	17-5-9-W4	53828
SMITH (1981)			1200	49.38	-110.71	14-5-6-W4	53827
SMITH (1981)			1200	49.28	-111.77	12-4-14-W4	53826
SMITH (1981)			1200	49.27	-111.41	3-4-11-W4	53825
SMITH (1981)			1200	49.31	-111.03	21-4-8-W4	53824
SMITH (1981)			1200	49.22	-111.50	24-3-12-W4	53823
SMITH (1981)			1200	49.22	-111.52	23-3-12-W4	53822
SMITH (1992)			1200	51.12	-111.97	12-25-15-W4	54336

Sagebrush Vole (*Lemmiscus curtatus*)

Source	Specimen ID	Locality	Precision (m)	Latitude (center)	Longitude (center)	Approx. ATS	BSOD Observation ID
SMITH (1992)			6900	51.05	-112.17	24-16-W4	54335
SMITH (1992)			6900	51.58	-112.61	30-19-W4	54332
SMITH (1992)			600	51.59	-112.52	NE-19-30-18-W4	54331
SMITH (1992)			600	51.51	-112.54	NE-25-29-19-W4	54330
SMITH (1992)			600	51.52	-112.07	SE-32-29-15-W4	54329
SMITH (1992)			600	51.10	-112.17	SE-4-25-16-W4	54328
UAMZ	M1008	Onefour	5000	49.08	-110.53	SW-15-2-4-W4	49943
UAMZ	M123	Compeer	5000	51.81	-110.08	SE-25-33-1-W4	49933
UAMZ	M132	Communications tower on the Alberta/Sask. border	1200	51.39	-110.02	13-28-1-W4	49934
UAMZ	M137	Youngstown	5000	51.48	-111.28	NE-33-29-9-W4	49935
UAMZ	M138	Youngstown	5000	51.48	-111.28	NE-33-29-9-W4	49935
UAMZ	M157	Pollockville	5000	51.06	-111.66	NE-3-25-12-W4	49936
UAMZ	M174	Suffield	5000	50.17	-111.23	NW-34-14-9-W4	49937
UAMZ	M190	Cardston	5000	49.15	-113.37	NE-9-3-25-W4	49938
UAMZ	M239	Foremost	5000	49.43	-111.51	NW-16-6-11-W4	49939
UAMZ	M240	Foremost	5000	49.43	-111.51	NW-16-6-11-W4	49939
UAMZ	M241	Foremost	5000	49.43	-111.51	NW-16-6-11-W4	49939
UAMZ	M287	Big Stone	5000	51.16	-111.26	SW-10-26-9-W4	49942
UAMZ	M288	Big Stone	5000	51.16	-111.26	SW-10-26-9-W4	49942
UAMZ	M3888	Milk River Valley where it leaves Alberta for the last time	800	49.00	-110.56	SE-1-1-5-W4	49951
UAMZ	M3889	Milk River Valley where it leaves Alberta for the last time	800	49.00	-110.56	SE-1-1-5-W4	49951
UAMZ	M3890	Milk River Valley where it leaves Alberta for the last time	800	49.00	-110.56	SE-1-1-5-W4	49951
UAMZ	M3891	Milk River Valley where it leaves Alberta for the last time	800	49.00	-110.56	SE-1-1-5-W4	49952
UAMZ	M3892	Milk River Valley where it leaves Alberta for the last time	800	49.00	-110.56	SE-1-1-5-W4	49953
UAMZ	M3893	Milk River Valley where it leaves Alberta for the last time	800	49.00	-110.56	SE-1-1-5-W4	49952
UAMZ	M5028	Badlands east of Manyberries	5000	49.36	-110.61	NE-24-5-5-W4	49944
UAMZ	M5029	Pinhorn Grazing Reserve	5000	49.04	-110.92	SW-2-2-7-W4	49945
UAMZ	M5030	Badlands east of Manyberries	5000	49.36	-110.61	NE-24-5-5-W4	49946
UAMZ	M5487	Tyrrell Lake, W shore	800	49.37	-112.29	NW-17-5-17-W4	49947
UAMZ	M5488	Tyrrell Lake, W shore	800	49.37	-112.29	NW-17-5-17-W4	49947
UAMZ	M5645	Tyrrell Lake, W shore	800	49.37	-112.29	NW-17-5-17-W4	49947
UAMZ	M5646	Tyrrell Lake, W shore	800	49.37	-112.29	NW-17-5-17-W4	49947
UAMZ	M6744	Pinhorn Grazing Reserve	5000	49.04	-110.92	SW-2-2-7-W4	49948
UAMZ	M6745	Pinhorn Grazing Reserve	5000	49.04	-110.92	SW-2-2-7-W4	49949
UAMZ	M6746	Pinhorn Grazing Reserve	5000	49.04	-110.92	SW-2-2-7-W4	49949
UAMZ	M6747	Pinhorn Grazing Reserve	5000	49.04	-110.92	SW-2-2-7-W4	49950

Sagebrush Vole (*Lemmiscus curtatus*)

Source	Specimen ID	Locality	Precision (m)	Latitude (center)	Longitude (center)	Approx. ATS	BSOD Observation ID
UAMZ	M6748	Pinhorn Grazing Reserve	5000	49.04	-110.92	SW-2-2-7-W4	49950
UAMZ	M6749	Pinhorn Grazing Reserve	5000	49.04	-110.92	SW-2-2-7-W4	49950
UAMZ	M6789	Dowling Lake	5000	51.68	-112.09	SE-11-32-15-W4	49954
UAMZ	M6883	Pinhorn Grazing Reserve	5000	49.04	-110.92	SW-2-2-7-W4	49948

Brown Lemming (*Lemmus sibiricus*)

Source	Specimen ID	Locality	Precision (m)	Latitude (center)	Longitude (center)	Approx. ATS	BSOD Observation ID
PMA	83.32.1	Willmore Wilderness Park	800	53.53	-119.40	SW-34-52-10-W6	49692

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